

# CENTRAL PUBLIC WORKS DEPARTMENT

(In the Service of the Nation since 1854)

## 1.0 Evolution

Origin of Central Public Works Department, the principal Public Works Organization of the Government of India is intertwined with the history of the Nation. It came into existence in July 1854 with the setting up of Ajmer Central Division for colonial works and acquired its present form in 1938 with establishment of permanent units. The evolution can be split into three periods:

- 1.1 **Pre-independence Era:** CPWD has to its credit construction of prestigious buildings like Mayo College Ajmer, Imperial Simla, and New Imperial Capital at Delhi (Rashtrapati Bhawan, North and South Block, Parliament House, Lutyen's Delhi) etc.
- 1.2 **Post independence Phase:** Refugee Townships in Delhi, Strategic Airports, Border Roads linking Srinagar, Granaries and Godowns, Government Buildings and Colonies in Delhi and other cities, IIT Kharagpur, Industrial Buildings, Buildings for Asiad-82 etc.
- 1.3 **Post Liberalisation:** Border Fencing & Lighting Works, Institutional Buildings (Jawahar Bhawan, SEBI Building, Revenue Buildings), Central Police Campuses (CRPF, BSF, SSB, Assam Rifles, NSG etc.), Tsunami Rehabilitation Works, Stadia and facilities for Commonwealth Games in Delhi and other cities, PMGSY, Jetties for Inland Waterways, RSVY infrastructure in Bihar, Urban Road infrastructure in Delhi etc.
- 2.0 CPWD has grown into a multifaceted comprehensive construction and Maintenance Management Agency with the best construction engineering, architectural and horticulture capabilities.
- 2.1 The strength of CPWD is its country wide presence, proven ability to undertake complex construction activity under difficult terrains and capacity to undertake the smallest works in the remotest of places to mega projects in Metro Cities as well as outside the country. CPWD has repeatedly been called upon to provide infrastructural facilities catering to different spheres of human activities throughout the country.
- 2.2 Notwithstanding the fact that post dilution of monopolies granted through provisions of GFR, CPWD continues to be the main agency entrusted with the largest, most prestigious and most difficult construction works.

# 3.0 Functions and Capability

- 3.1 Major Functions of CPWD are Construction and Maintenance. Construction works are of various kinds: e.g. Buildings of various kinds (Residential, Office, Schools, Laboratories, Hospitals, Stadia, Gymnasia and Auditoria, Storages etc.) including intra-campus services (Water and Electric Supply, Sewerage and Treatment Plants, Air-conditioning, campus roads, drainage, lighting, Solar power etc.) and non-Building Infrastructure works (highways, flyovers, tunnels, bridges, jetties, sports facilities, border fencing, airports, runways etc).
- 3.2 CPWD is also involved in other multiple discharge of other functions e.g. Custody of Estates, Valuation, Rent Assessment, Technical Advice to Government, Consultancy Services, Standardization and Benchmarking, State Ceremonies (Republic Day, Samadhis, etc.), Processing of DPRs for development of urban infrastructure under JNNURM and works of North East under the Ministry for Development of North Eastern Region (DONER), Ministry of HUPA and of other Ministries for centrally funded works. CPWD also assists in organizing Public and Ceremonial Functions, and upkeep of Historical and Important Monuments, Structures and Samadhis etc.
- 3.3 CPWD maintains a very large building stock of varying vintage and size comprising of General Pool residential accommodation and Central Government Buildings. The approximate number of General Pool residential units maintained by CPWD is more than one lakh and General Pool office area maintained by CPWD is more than 14 lakh square metres. A scheme for Up-gradation for bringing facilities provided at par with currently prescribed facilities is being implemented.
- 3.4 The CPWD functions under powers delegated by and close control exercised by the Ministry of Urban Development.
- 3.5 CPWD is capable of providing single window service for all facets of built environment with complete accountability and responsibility. It is an organization with large bank of Engineering, Architectural and Horticulture and other human resources, which renders comprehensive services in the field of planning, designing, construction and maintenance management for all Building & Infrastructure projects with Quality Assurance.
- 3.6 It handles wide range of projects pertaining to Housing, Office space, Hospitals, Educational Institutions, Roads, National Highways, Bridges, Flyovers, Airports, Tourism and Culture, Environmental and other utility services. It also executes Border Fencing, Flood lighting and Road projects in difficult terrain under hostile conditions along our borders.

# 4.0 Setup of CPWD

## 4.1 Cadres in CPWD

CPWD has three organized Group 'A' Cadres which are controlled by the Ministry of Urban Development. These are Central Engineering Service (Civil), Central Electrical and Mechanical Service and Central Architect Service. There are also a few Group 'A' posts in the Horticulture Cadre. Then there are Group 'B' & 'C' subordinate services, controlled by DG, CPWD for Engineers, Architects, Horticulturist, Ministerial staff, Engineering Drawing Staff,

Stenographers and Rajbhasa staff (OL). CPWD also has a large strength of workmen in various categories and this cadre is called Work Charged cadre owing to the fact that earlier their expenditure was drawn from the budget for works. The recruitment to this cadre, which is effectively permanent, has been on hold since 1991 and their strength is dwindling. All these cadres have both permanent posts as well as posts created temporarily for a specific purpose/ period.

To ensure that the accounts of CPWD are seamless with the accounts of the Government, Accountants and Financial Officers drawn from cadre controlled by Chief Controller of Accounts of the Ministry are posted in each accounting unit, or else, the bills are pre audited by the Pay & Account Offices under CCA. Similarly, for administrative functions, Ministerial staff from Central Secretariat Staff Cadre and Central Secretariat Stenographers Cadre, Central Rajbhasa (Official Language) cadre and a Law Officer from the cadre of Ministry of Law and Justice are posted in Central Office and most Zonal Offices. A contingent from NIC cadre also assists in IT related functions. Officers drawn from the Ministry of Labour are posted to various field locations for Labour Welfare functions.

CPWD cadres, both technical and non-technical are en-cadred in various organizations such as Delhi PWD, Income Tax Department and Ministry of Environment & Forest etc. In addition to this many CPWD personnel are deployed on deputation to a host of Government Ministries / Departments, autonomous and public sector entities.

## 4.2 **Functional units**

The basic unit of execution of work is the Division which is further divided into Sub-divisions and Sections which are headed by Executive Engineer, Assistant Engineer/Assistant Executive Engineer and Junior Engineer respectively. One or more Divisions is placed under the control of a Circle headed by Superintending Engineer and one or more circles is placed under the control of a Zone headed by a Chief Engineer. The designation of Horticulture Officers is Section Officer, Assistant Director, Dy. Director, Director and Dy. Director General.

While all technical staff in a Division or a Circle usually consists of officers of either Civil or Electrical & Mechanical or Horticulture cadres, a Zone includes all the technical staff of the three streams looking after the works in its jurisdiction.

A Project Unit may consist of Executive Engineers of one or more streams and may be headed by Superintending Engineer or Chief Engineer of either stream.

On the Architecture side, the basic unit of Planning may be either Architect or Senior Architect and one or more Senior Architect Units are placed under the control of a Chief Architect. On the Engineering side, Divisions, Circles and some Zones are supported by Planning units headed by an Assistant Engineer, Executive Engineer and Superintending Engineer respectively.

## 4.3 Central, Regional and Sub-regional Offices

Central Public Works Department is headed by Director General who is also the Principal Technical Advisor to the Government of India. Jurisdiction of the

Department is divided into Regions. In the Central Office, the DG is supported by Special DG(HQ), ADG(Strategy and Planning), ADG(Technical ADG(Training) and DDGs Development), for HQ function. Works. e-Governance, Chief Engineers CDO, CSQ(Civil), CSQ(Elect) and ED(CSO). ADG(Training) is assisted by Chief Engineers Civil and E&M and Chief Architect.

The 5 Regions, each headed by a Special Directors General, are divided in to 10 Sub-regions headed by Additional Directors General. The Special DGs are supported by DDGs HQ and BD-cum-Training. A Chief Engineer (Public-Private Partnership) is placed under Spl DG (Delhi Region). The 31 Zones and 16 Project Units headed by Chief Project Managers are placed under the Sub-regions.

#### 4.4 Specialized Units of CPWD

#### **Central Design Organization**

Central Design Organization (CDO), a specialized unit of CPWD, is involved in the field of structural design, computerization, adoption of new materials, new construction techniques, materials testing, soil investigations, repairs and rehabilitation of structure in distress, development of soft ware and e-governance etc.

#### **Contract and Manual Unit**

This unit is responsible for registration and revalidation of contractors, updating of CPWD manual. This unit also issues Technical Circulars in respect of Contracts, Manuals and Delegation of Powers to various officers of CPWD. The revised and updated CPWD Works Manual 2012 used for regulating the works incorporating many important changes in work procedures is already in place.

#### **Quality Assurance Unit**

This unit is responsible for conducting inspection of various construction and maintenance works, issue of Inspection reports for assurance of quality in the works. Regular inspections of major works are carried out by this unit.

## **Techno-Legal Cell**

This unit is responsible for dealing with the arbitration cases, Court cases, and approval of counter statement of facts in the Arbitration cases, other litigation matters and issue of circulars regarding all the above activities.

#### **Teachnology Application & Specifications Unit**

This unit is responsible for updating the Specifications of works, issue of circulars from time to time, laying down specifications for new materials, approval of Cost Index, revision and updating of schedule of rates etc. CPWD Publications viz. Delhi Schedule of Rate 2012, DAR 2012 and Plinth Area Rate 2012 are already in place. CPWD Specifications 2012 have also been published and brought out.

#### **Training Institute and Regional Centres**

CPWD has its main Training Institute at Ghaziabad and regional Training Institutes and Workmen Training Centres at Delhi, Mumbai, Kolkata, Chennai and Guwahati. These Institutes conduct number of courses for officers and staff of all disciplines. The training programs of the Institute include foundation courses for direct recruit Assistant Executive Engineers, Deputy Architects, Junior Engineers, orientation program for newly promoted Executive Engineers and Superintending Engineers, and other staff etc. In-Service Training to officers at different stages, specialized training in computer application for various levels of staff, Contract and Arbitration, Environmental Management, Green Building etc.

Training Institute also organizes training programme on Modern Management Techniques like Project Management, Team Building, Strategic Planning and Stress Management. Training Institute is also organizing Management Development Programme for mid level officers in the grade of Superintending Engineer and Executive Engineer at IIM, Bangalore. Keeping in view the role of CPWD in promoting Green Building and infrastructure facilities available at CPWD Training Institute, Ministry of New and Renewable Energy (MNRE) has designated CPWD Training Institute, Ghaziabad as Centre of Excellence for Green Building.

## **Consultancy Services Organization**

CPWD provides consultancy services for various public sector organizations/ autonomous bodies, State Governments etc. in planning, design and execution of major building projects, infrastructure works, complex structures and specialized planning and services like air conditioning and electrical installations, project management etc. through its Consultancy Services Organization (CSO).

#### Vigilance Unit

The Vigilance Unit of CPWD is headed by Chief Vigilance Officer of Joint Secretary level from Central Staffing pool. The activities of the Vigilance Unit include investigation of complaints, enquiries against erring officers and staff, issue of Vigilance Clearance Certificates for service matters, conducting surprise checks on stores and preventive vigilance by suggesting changes in the procedures.

#### **Business Development Units**

In every region, independent Business Development Units under the Regional Heads have been created for developing new clients, by showcasing the achievements of the Region and the Department.

#### 5.0 Vision and Performance

CPWD has adopted **'Excellence in Public Works'** as its vision and continuously striving even harder in its endeavours to achieve the Vision. Mission of CPWD is Sound Planning and Design, Engineered Construction, Effective Maintenance, Benchmarking the Standards, Capacity Building, Manpower Planning, and Transparency in Management of Works. This ensures achieving efficient building system compliant with latest Indian Standards, safety norms and modern living comforts through comprehensive planning, and design of Architectural, Structural and other services associated with the buildings.

The work policy of CPWD is to build built infrastructure which is (i) Green, (ii) Technically sound, (iii) Economical (iv) Environmentally sensitive (v) Energy efficient and (vi) Sustainable.

CPWD at present is executing more than 4500 projects costing over Rs. 22,000 crore for over 300 Departments and Ministries. In the year 2011-12, the workload has reached over R 8,700 crores. In the year 2012-13, the workload targeted is R 10,000 crore.

#### 6. Thrust areas

The following are key initiatives to bolster performance and achieve growth.

#### e-Governance Measures

CPWD has been engaged in reform process to achieve total e-governance for ensuring more transparency in the functioning of Organisation. Web-based project monitoring system (wb-PMS) and Monthly Accounting System, On-line Contractors Enlistment, e-Tendering, PIMS (Personnel information management system), cpwd-sewa and Call Centre for Maintenance are already in operation. Work is being done to implement e-Accounting (e-Lekha) and Payment system (CCA) and a Comprehensive ERP package for CPWD.

# Re-development of GPRA in Alternate Funding Mode (P.P.P)

CPWD has been assigned the job of re-development at Mohammadpur, Sarojini Nagar and Sriniwaspuri in Delhi in alternate funding mode. For this, a Special Purpose Vehicle (SPV) is being created. The seed money for initial operation shall be provided by the Govt. Subsequently SPV shall generate its own funds primarily by leasing out to PSUs.

#### **Sustainable Development**

CPWD has dedicated itself to the cause of reducing Carbon foot prints by promoting construction of Green Buildings. All projects being undertaken by CPWD shall be minimum three star GRIHA rating compliant (internal rating). All Projects and those where certification is required by client must be registered under GRIHA/other rating agencies. CPWD Engineers & Architects are being trained by Our Training Institute with the help of TERI etc.

#### Restructuring

One key initiative in the recently implemented Cadre Review is the unification of control of Civil & Electrical streams at Zonal level. This will ensure better coordination, cohesiveness & output of works.

Another is creation of 47 Project Units to handle major works and to ensure focused attention and to provide a single window for interface to the Clients. Also Business Development Cells have been created in the Regional HQs for attracting new clients, business promotion & showcasing the achievements of the Department.