

**13th TCDPAP International Conference on  
“Making Globalization Work:  
The Role of Consultants”**

**Country Paper: PAKISTAN**

**CHALLENGES TO ENGINEERING  
CONSULTANCY SECTOR IN  
PAKISTAN  
DUE TO GLOBALIZATION**

**BY**

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In the name of Allah the Most Gracious the Most  
Merciful

## ORGANIZATION OF PRESENTATION

- ENGINEERING CONSULTANCY SERVICES
- DEVELOPMENT OF ENGINEERING CONSULTANCY BUSINESS IN PAKISTAN
- ROLE OF DOMESTIC CONSULTANTS IN IMPLEMENTATION OF MAJOR PROJECTS
- ESTABLISHMENT OF PAKISTAN ENGINEERING COUNCIL
- NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED (NESPAK)
- ASSOCIATION OF CONSULTING ENGINEERS PAKISTAN (ACEP)
- METHODS OF PROCUREMENT OF ENGINEERING CONSULTANCY SERVICES
- FUTURE CHALLENGES TO ENGINEERING CONSULTANTS
- LIBERALIZED GLOBAL MARKET PLACE
- CPD INITIATIVE BY PEC
- RECOMMENDATIONS

## ENGINEERING CONSULTANCY SERVICES

- Engineering related Studies
- Feasibility Reports
- Detailed Design
- Construction Supervision/ Project Management
- Contract Administration
- Sound Engineering/ Professional Practices
- Main Inputs: Knowledge-based human intellect

## *DEVELOPMENT OF ENGINEERING CONSULTANCY BUSINESS IN PAKISTAN*

- More than 500 independent Engineering Consultancy Firms are operating
- Render Professional Services solely or thru JVs
- More than 100,000 registered Professional Engineers
- Major Contribution on National Projects

## *ROLE OF DOMESTIC CONSULTANTS IN IMPLEMENTATION OF MAJOR PROJECTS*

- Play a Key Role
- Contribute 70-80% of the Man-Months
- Save Millions in Foreign Exchange
- Foreign Consultants Cost about 10 Times Higher

## *ROLE OF DOMESTIC CONSULTANTS IN IMPLEMENTATION OF MAJOR PROJECTS*

### **SOME MAJOR DEVELOPMENT PROJECTS**

- Mangla Dam Raising
- Chashma Right Bank Irrigation Project
- Ghazi-Barotha Hydropower Project
- Neelum Jhelum Hydropower Project
- Thermal Power Stations
- Transmission Lines
- Motorways and Highways
- Major International Airports
- On-Farm Water Management Projects
- Port Qasim
- Lining of Canals & Distributaries

## *ESTABLISHMENT OF PAKISTAN ENGINEERING COUNCIL*

- PEC Formed as a Statutory Body in 1976
- Regulates Engineering Profession in Pakistan
- Registration of Professional Engineers
- Licensing to Consulting Engineers
- Licensing to Constructors

## **ESTABLISHMENT OF PAKISTAN ENGINEERING COUNCIL**

### **Other Roles of PEC**

- **Procedures and Criteria for Appointment of Consulting Engineers**
- **Criteria for fixation of minimum consultancy remuneration and method of payment**
- **Code of Conduct and Professional Ethics**
- **Investigating complaints against Consulting Engineers or Clients**
- **Fixing penalties for misconduct**
- **Imposing limitations on the appointment of expatriate consultants in the fields where local expertise exists in the country**
- **Preparing country-specific Bidding and Contracting Documents**
- **Encouraging Development of various competencies through Continuing Professional Development (CPD)**

## **NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED (NESPAK)**

- **Established in 1973**
- **Autonomous Body under Ministry of Water & Power, Govt. of Pakistan**
- **Provides Consultancy Services in almost all Disciplines of Engineering**
- **20 Foreign Projects undertaken by NESPAK in financial year 2007-8**
- **These Foreign Projects generated 27% of the total revenue**

## **ASSOCIATION OF CONSULTING ENGINEERS PAKISTAN (ACEP)**

- ACEP is the National Representative body of Consulting Engineering Firms
- ACEP is an Associate Member of FIDIC
- ACEP Represents Pakistani Potential in Engineering Consultancy
- Objectives of ACEP:
  - To promote common interests of the members and development of Consulting Engineers
  - Continued coordination with PEC to streamline issues as encountered
  - Defining and maintaining a Code of Ethics
  - Development of members' Technical Skills
  - Struggle for adequate compensation against rendering of services
  - Promote fraternity among members, particularly public and private sectors

## **METHODS OF PROCUREMENT OF ENGINEERING CONSULTANCY SERVICES**

- Selection of Consulting Engineers affects the End Result
- Very Important Decision
- Two systems of Selection:
  - QCBS
  - QBS
- QCBS supported by: World Bank, Asian Bank, PEC
- QBS Recommended for Complex and highly specialized works
- FIDIC supports QBS
- PEC has recently recognized QBS due to efforts of ACEP

## **METHODS OF PROCUREMENT OF ENGINEERING CONSULTANCY SERVICES**

Country Paper: Pakistan

CHALLENGES TO ENGINEERING CONSULTANCY SECTOR IN PAKISTAN

- **Advantages of QBS**
  - Consultants are selected first on competence, experience, creativity, professional judgment and performance
  - Negotiation of a fair and reasonable price follow as the second step
  - Helps develop a functional and cost-effective facility designed to meet the needs of the Project
  - Top-quality Consultants bring best practices to the Project
  - This translates into the best possible solutions for the Client and the end user
  - Results in appropriate technology, innovative solutions and the lowest life cycle cost
  - QBS improves value
  - QBS process encourages consultants to continually improve their skills and strive for creativity and innovation because their selection depends on it.
  - QBS develops a successful and cooperative relationship between the Client and the Consulting Firm

## **METHODS OF PROCUREMENT OF ENGINEERING CONSULTANCY SERVICES**

Country Paper: Pakistan

CHALLENGES TO ENGINEERING CONSULTANCY SECTOR IN PAKISTAN

- **Challenges posed to Asian and Pacific Consultants due to Globalization:**
  - Need to attain the highest level of competencies
  - Involvement of Foreign Consultants on Major Projects
  - Develop and enhance Qualification
  - Need for Continuing Professional Development (CPD)
  - CPD activities are costly and require regional Cooperation to lower the Cost and Improve Quality

## ***FUTURE CHALLENGES TO ENGINEERING CONSULTANTS***

- Traditional spheres of Engineering Consultancy are expanding
- Arrangements for Project finances
- Changing practices for Project Management
- Need for Continuing Professional Development (CPD)

## ***LIBERALIZED GLOBAL MARKET PLACE***

- GATS under WTO poses great challenges
- Mergers of International giant firms
- Such arrangements make thing even more difficult
- Restriction on movement of Natural Persons to the developed countries

## CPD INITIATIVE BY PEC

- PEC has recently implemented the CPD through a Government Order
- Every Professional Engineer shall have to gather a requisite number of Credit Points for renewal of his membership
- Will give due importance to on-the-job Training
- Acquiring better and state-of-the-art Competencies

## RECOMMENDATIONS

- Pakistani Consulting Firms must make radical improvements in Consultancy Services.
- PEC has implemented standard documents for procurement of Consultancy Services.
- Consulting Firms of the region need to invest in Emerging Competencies.
- To take advantage of Globalization, we need to take the following measures:
  - Promote and encourage QBS as the major system for selection of Engineering Consulting Firms.
  - International donors and funding agencies be persuaded to use QBS as the primary system for selection of consultants, through TCDPAP and at the level of National Associations of Consulting Engineers.

## RECOMMENDATIONS

- Implementation of a robust system of Continuing Professional Development (CPD) and on-job-training for developing state-of-the-art competencies.
- Endeavour for internationally acceptable PE qualifications/ registration to facilitate movement of Natural Persons to the developed countries without acquiring/passing additional qualifications/tests.
- Professional Exchange Programme under the umbrella of TCDPAP, ACEP and PEC and all National-Level Professional Associations in the Region.

## RECOMMENDATIONS

- Networking of resources of all Consultants in the Asia-Pacific Region by improving coordination through National Associations of Consulting Engineers.
- Improved technical cooperation will help reduce the recurring expenditure on CPD.
- In order to benefit from the opportunities offered by globalization, a regional database may be prepared for identification of suitable Joint Venture Partners, as merger of consulting firms in the region seems to be a remote possibility.

**THANK YOU**