

# Commonwealth Infrastructure Partners

## Training programmes for engineers and managers highways, roads and bridges

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### Introduction

Commonwealth Infrastructure Partners (CIP) provides specialist training programmes for managers and engineers in the highways, roads and bridges sector. The programmes provide the practical knowledge and resources to develop international best practice in project design and implementation, as well as in all aspects of project management.

Commonwealth Infrastructure Partners (CIP) capacity building and training programmes are designed to equip professionals with the best practical knowledge and strategic tools in their sector, and to develop the ability to understand and anticipate new developments in their field.

### Outcomes and benefits

All CIP capacity building programmes focus on outcomes and benefits for both the client organisation and individual participants. This is accomplished by:

- i. A dialogue in advance of the programme with senior managers in the client organisation to determine:
  - a. Priorities for organisational development in the organisation
  - b. Specific challenges and training requirements for the participants in the programme
- ii. Interactive structure for the programme, focusing on practical learning outcomes
- iii. Ongoing dialogue and feedback with senior managers and participants
- iv. Modification and refinement of the programme as necessary to optimise results

### Outcomes and benefits in training programmes in the highways, roads & bridges sector

There are significant developments in all elements in the highways sector. The CIP team have international expertise in this sector and CIP capacity building programmes focus on providing practical knowledge for international best practice in topics including:

- i. Strategic planning
- ii. Road and bridge design
- iii. Project, contract and stakeholder management
- iv. Integration with other elements of the transport network and other infrastructure areas

### **Individual benefits**

Managers and engineers gain increased competence in technical and management practice. They become familiar with international best practice in the sector, and develop enhanced capability in integrating international standards with local requirements and challenges.

### **Organisational benefits**

The government department or company benefits from enhanced organisational efficiency and competence. There is better communication and understanding between managers and engineers, and senior personnel are better equipped to manage and improve standards of performance in the work force.

Improved capability in project planning and execution result in better project management and stakeholder management.

### **Capacity building programmes with sector specialists**

CIP engages sector specialists to design and deliver customised programmes for each sector. Wherever practical, CIP's partners are not only familiar with international best practice but also have high-level experience relevant to the country where a project will be implemented.

CIP's core team and partners have experience across a broad range of infrastructure sectors, and are therefore able to integrate the needs and challenges of a particular sector with the overall development requirements of the country.

### **Integrating management and technical capability**

CIP capacity building programmes focus on integrating management and technical capabilities. Lack of such integration can often be identified as the cause of inadequate project planning or of projects failing to achieve their target. Our specialists have experience in project management in addition to their sector expertise.

### **Capacity building programmes in highways and road transport infrastructure**

CIP partners have over 30 years of experience in highways, urban and rural roads systems, bridges and ports, including projects in the UK, other European countries and India. CIP has expertise in capacity building programmes for project management, professional engineering and other relevant topics.

### **Training programmes for engineers and managers**

Following discussions with senior officials in the Ministry of Road Transport and Highways (MoRTH), National Highways Authority of India (NHAI) and the Indian Academy of Highway Engineers (IAHE) to identify priority requirements for training highway engineers and managers, CIP has developed professional training material in topics including:

- Strategic planning
- Highway and bridge design
- Procurement
- Contract management
- Project management
- Engineering expertise
- Quality assurance
- Stakeholder management, including consultants, contractors and client
- Highway and road design for optimum safety and traffic discipline
- Integration with other elements of the transport network: rail, air, inland waterways and ports
- Integration with other infrastructure sectors
- Integration with urban & rural planning and development

### **Duration and level of programmes**

CIP can customise the duration and level of programmes to suit the requirements of the public or private sector client organisation.

- From one- or two-week workshops
- To three- or six-month postgraduate level work-based learning programmes

### **Programme structure**

Programmes are structured to give a combination of knowledge and practical experience.

**Short workshops** include field visits to give practical exposure to the knowledge gained in classroom sessions.

**Longer programmes** follow a work-based learning structure. Where feasible, practical classroom sessions are based near a project location so that participants can observe working practice under the supervision of the programme leaders.

Participants then have a period of work-based experience in actual projects in their work environment.

### **Programme timetable**

The programme timetable can be adjusted to fit the needs of the client organisation and the work schedule of participants.

### **Integration with international best practice**

As with all other infrastructure sectors, local expertise and implementation methods have to match international best practice. Nearly all major projects involve international collaboration, whether with commercial partners, sources of funding or international consultancy partners. CIP uses its international experience in assisting local partners to incorporate best practice in their project design and implementation.

## **Professional Engineering programmes**

All engineering sectors face challenges arising from a lack of engineering competence at the required professional level. CIP Director Jonathan Ling has pioneered Masters' and Bachelors' Degree Programmes in Professional Engineering, working with the UK Engineering Council and UK universities. CIP offers programmes in Professional Engineering customised for the highways sector.

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