

CHALLENGES AND OPPORTUNITIES IN THE DEVELOPMENT OF THE CONSTRUCTION INDUSTRY PERSONNEL: *THE NCC EXPERIENCE*

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Abstract

The National Construction Council (NCC) has been conducting training aimed at enhancing capacity and improving performance for various stakeholders in the construction industry in line with the Construction Industry Policy (CIP). This paper will discuss the status of the training which has been conducted by the NCC and the way forward.

1.0 INTRODUCTION

Training is one of the flagships for capacity and performance improvement, of actors in the construction industry. Training allows acquisition of best practices much needed for the quality and productivity improvement, thereby enhancing competitiveness and ensuring value for money on constructed facilities.

NCC is continuously implementing a number of practical oriented training initiatives. The major areas covered include: procurement, contract administration, project management, cost estimating, legal aspects of construction contracts, technical auditing, arbitration, claims management, contractor training, Public Private Partnership (PPPs), labour based technology in road maintenance rehabilitation and construction, building maintenance, computer-based cost estimating and project management. Tailor made courses are conducted on need basis from clients.

The NCC's initiative for development of the construction industry personnel has been conducted under three programmes; namely: The Consultant's Development Programmes; Contractors Training Programme; and General Tailor Made Training Programmes.

2.0 THE CONSULTANT'S DEVELOPMENT PROGRAMME

In 1999, the Commonwealth Secretariat agreed to provide funding for a period of two years for a programme of training to develop the local consulting engineers and enable them to compete with the foreign consultants training a Consultant was appointed at the end of 1999 and work started in early 2000.

During January and February 2000, a comprehensive Training Needs Analysis was carried out and to identify the training requirements for the local consulting engineers. The analysis highlighted that the Consultant's lack of access to meaningful experience as a major factor in inhibiting the development of skills.

A report outlining how local consulting engineering organizations could be improved was produced in March 2000. The training needs analysis identified a number of areas of skills deficiencies within the consulting group which were to be addressed by appropriate training.

The report identified the following areas of training need amongst managerial and technical staff in the Consultant's organizations:

- Marketing
- Financial Management
- Business Management
- Safety Management
- Time Management
- Management of People
- Quality Management
- Environment Management
- Contract Administration
- Presentation Skills

The target recipients for the training were divided into three groups as follows:

Group 1 Principals of the Business:

Those in the line of succession and senior managers charged with managing parts or all of the business.

Group 2 Office based engineering staff:

Whose function is to carry out the project design and implementation. These engineers and technicians have received a good technical education in University or Technical College but lack the practical experience to recognize Good Engineering Practice. They will also suffer from lack of professional management procedures within the business.

Group 3 Site based supervisory staff:

As with the office based engineering staff, most of these have received a good technical engineering education but, without the relevant practical experience, lack the skills to apply it professionally.

The report further insisted that training is only part of the solution. Training, without the opportunity to put the skills into practice, is largely wasted. Unless the opportunities to participate in work opportunities are given to the local Consultants, no progress can be made towards self sufficiency.

Local Consultants must be afforded opportunities to take significant responsibilities in project design and contract administration under the guidance of foreign expertise. The Project Report made recommendations for action to be taken to support this and the Government and Donors are urged to develop a policy to encourage this.

- Government and Donors should encourage meaningful joint ventures between local and foreign Consultants for the larger projects. The terms of the Joint Venture Agreements could be judged for the effectiveness of the transfer of expertise and this used as one of the Evaluation Criteria.
- Government and Donors should be encouraged, wherever possible, to break up projects into smaller packages that are within the abilities of the local Consultants.
- Funds for training could be allocated within project funding.
- Suitable projects could be identified, and then used as specific training projects, using a combination of training and field experience.
- It should be kept in mind that the majority of the consulting organisations are too small to be viable in anything other than minor projects. Some rationalization of the industry is, therefore, inevitable, mergers and acquisitions are to be encouraged and, indeed, at its present size, the local Consultants would be unable to handle any significant portion of the road sector work.

The Institute of Development Management (IDM) was identified to deliver the management courses. The following 3-day courses were developed, specifically aimed at the senior managers in the Consultant organizations. The courses were designed specifically to suite the construction industry in Tanzania:

Business Management – Marketing and Business Planning

- Objective, to enable delegates to gain a competitive edge in current market conditions. **Seven (7) consultants were trained**

Business Management – Strategic Management

- Objective, to enable delegates to position their business to best take advantage of future market trends. **Four (4) consultants were trained**

Business Management – Financial Management

- Objective, to enable delegates to ensure that sufficient financial resources are available at the right time to achieve the strategic objectives of the organization. **This was not conducted due to low number of participation.**

The two courses were run in October 2000 with the financial management course planned for mid 2001. The feedback from the delegates indicated a very high level of satisfaction with the courses for their relevance, content and delivery. In order to strengthen the programme and ensure its sustainability, a total of eight (8) trainers from NCC were trained to deliver some courses.

3.0 CONTRACTORS TRAINING PROGRAMMES

Since 1986, the government embarked on various major programmes, aimed at improving the transportation sector within the country and in particular the condition of trunk and regional roads. Among them were the Sixth Highway Rehabilitation Project and the Integrated Road Projects (IRP). Having realized that there was a big shortage of local contracting capacity to participate in road rehabilitation and maintenance programmes, both projects made provision for local contractor development programme through training. These were assistance to the local contracting industry project through sixth highway project and support to strengthen NCC's capacity to provide training and advisory services to contractors, and training of labour based contractors through IRP. NCC has also been involved in various contractors training programmes notably, MRSP Contractor training programme, TACECA Contractors training Programmes, FINNROADS Labour based contractor training programmes.

Training of contractors was carried out in six centres mainly: Kilimanjaro, Mwanza, Morogoro, Dar es Salaam, Dodoma and Nachingwea in Lindi regions.

Kilimanjaro Centre – Labour Based Contractor Training to Road Rehabilitation and Maintenance

At the Kilimanjaro centre a total of 29 contractors were trained as follows: Kilimanjaro region 12), Arusha region 6) and Shinyanga region 12). The training methodology consisted of three phases: classroom, field and trial contracts. All contractors completed their training cycles except those from Arusha who could not do trial contracts due to lack of funds for road works. A total of 70 kms of road and 235 culverts and drift were rehabilitated at Kilimanjaro region while in Shinyanga 10 kms of road and 82 culverts were rehabilitated

Morogoro Centre - Gravel and Bituminous Roads and Bridges Maintenance Contractors

Through the Morogoro Road Support Project, Morogoro Based Contractors underwent training in road rehabilitation and maintenance financed by the Swiss Agency for Development Corporation. A total of 27 contractors have been trained in Morogoro region; 17 on gravel road rehabilitation and maintenance out of whom 3 underwent training on bituminous roads maintenance and 10 on rehabilitation and maintenance of 3 bridges.

The training methodology in Morogoro also included classroom, field and trial contracts. However, Contractors were trained both in labour-based technology and equipment based method. A total of 276.2 kms of road and 24 bridges were rehabilitated.

Mwanza Centre - Labour-based Contractors Training in Road Rehabilitation and Maintenance

A total of 12 contractors were trained in Mwanza region in 1995/96. These contractors completed only classroom and field training. Due to delayed funding, they could not carryout trial contracts immediately. In 1998 UNDP through the United Nations Capital Development Fund (UNCDF) obtained funds for the trained contractors to carry out trial contracts. Phase I involved the first batch of 6 contractors and Phase II involved 8 contractors including the best 2 performing contractors in Phase I. After completion of trial contracts only 9 contractors were declared qualified for future works. A total of 25.9 kms and 79 culverts were rehabilitated.

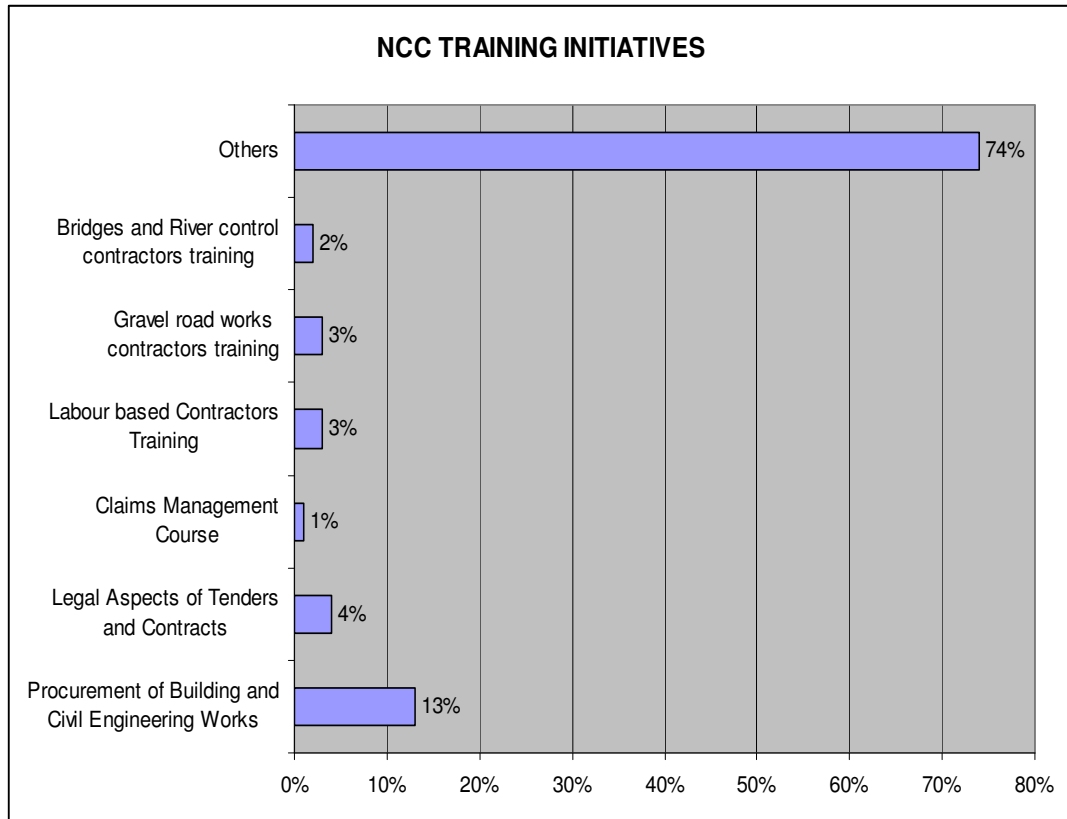
Nachingwea - Training of Petty Contractors in Lindi and Mtwara Regions in Labour Based Technology

The government of Finland through its development agency (FINIDA) provided technical and financial assistance to Tanzania to carryout a rural roads project in Lindi and Mtwara regions. The programme also involved training of petty contractors to undertake spot improvement and road maintenance works using labour based methods and equipment based methods. A total of 22 contractors were trained from April 2000 to arch 2001. Training methodology included; classroom training, field and trial contracts. A total of 72.2 kms were rehabilitated in Nachingwea through this programme.

Dodoma and Dar es Salaam - TACECA Contractors Training Programme

Through the Tanzania Civil Engineering Contractors Association (TACECA), Contractors who are member of TACECA underwent training in road rehabilitation and maintenance financed by the Swiss Agency for Development Corporation (SDC). A total of 78 contractors have been trained in Dodoma and Dar es Salaam regions; 61 on gravel road rehabilitation and maintenance and 17 on bridges and river control works. The training methodology included classroom, field and trial contracts. A total of 230 kms and 3 bridges were rehabilitated during the conduction of this programme.

The bar chart below summarizes the NCC training initiatives indicating the percentages of participants to each course programme.



4.0 GENERAL AND TAILOR MADE TRAINING PROGRAMMES

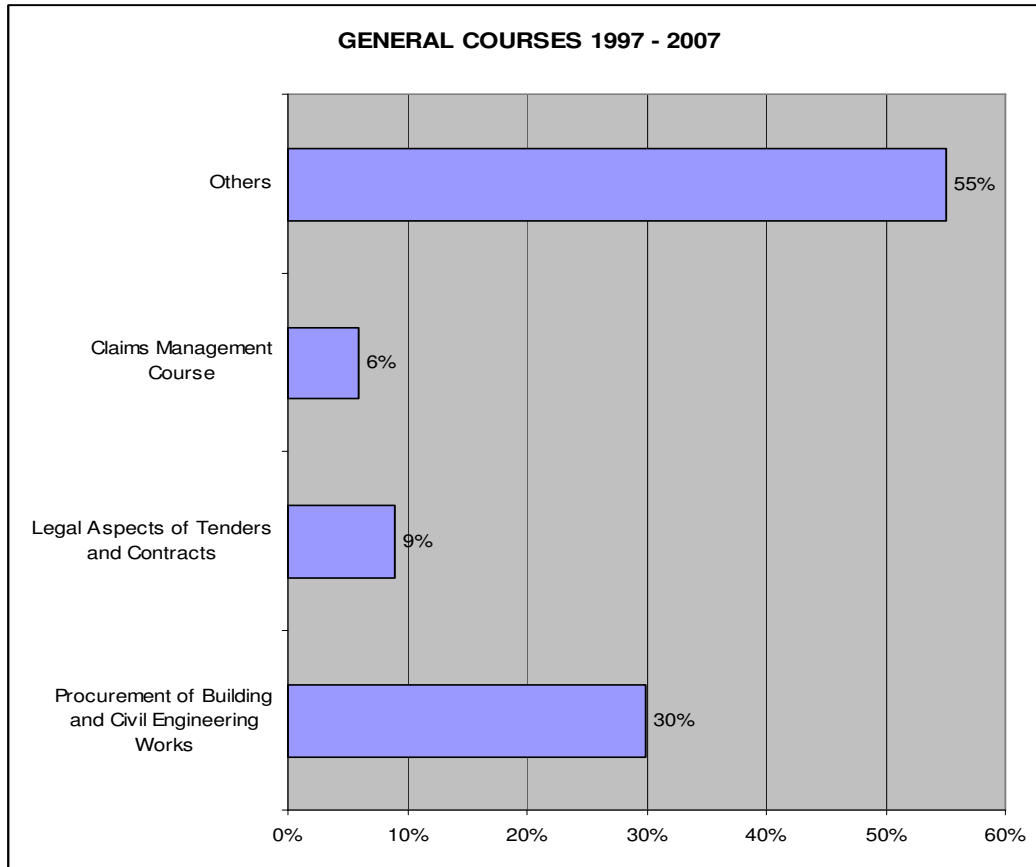
NCC has continued to offer both general and tailor made programmes to cater for specific needs as identified for all interested stakeholders. Notable ones are:

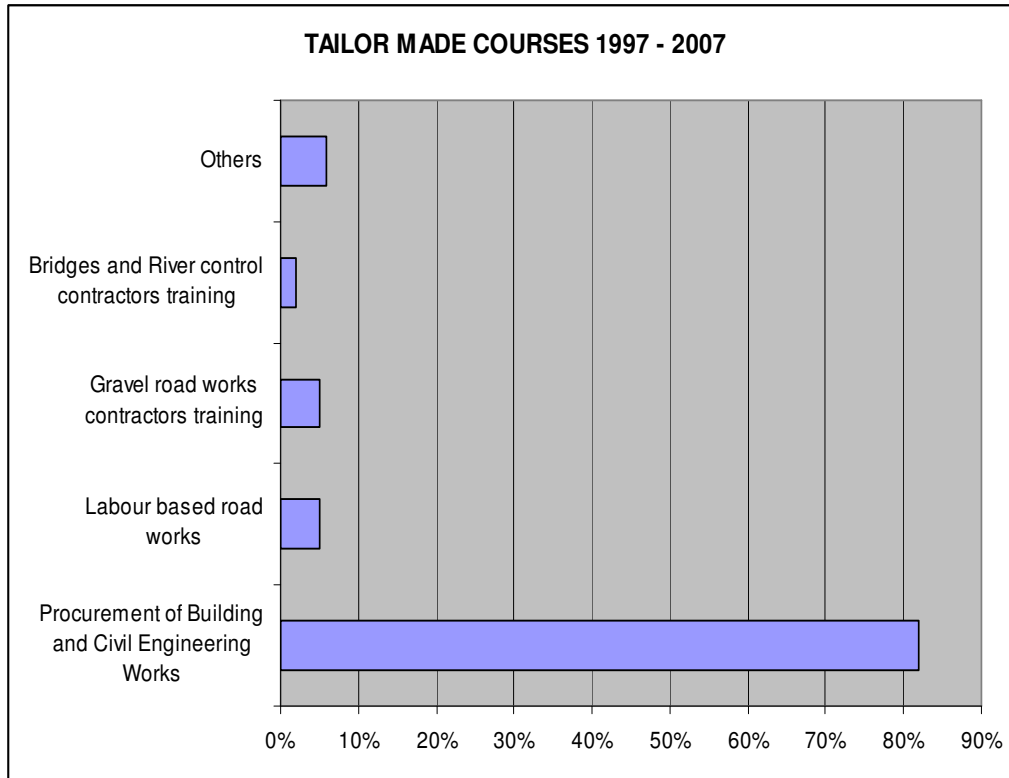
- Course on Procurement of Works
- Course on Project Cost estimation for road works.
- Course on Building Maintenance
- Course on Construction Contract administration
- Course on management and Building and Civil Engineering Claims
- Course on principle and conduct of arbitration
- Course on Building Maintenance

- Course on Procurement of Consultancy services

Since 1997 the courses have attracted a total of 3,056 participants comprising of accountants, architects, engineers, estate managers, insurance agents, lawyers, quantity surveyors, local government councilors, supplies officers, stocker verifiers, valuers, planners, contactors, consultants and technicians.

The charts below summarize the participation in both general and tailor made courses since 1997. The bars indicate the percentages of participants for each course.





5.0 CHALLENGES AND CONSTRAINTS IN THE IMPLEMENTATION OF TRAINING PROGRAMMES

5.1 Inadequate Workload for Trained Contractors and Consultants

Assured continuity of work beyond the training programme had been a major problem since the beginning of all the training programmes. The negative effect of this to the trained contractors and consultants is the loss of knowledge gained and trained supervisors. It has therefore been very difficult to assess the effectiveness of the training courses.

5.2 Inadequate Access to Credit Facilities

Contractors continue to face problems in accessing credit facilities. Commercial banks are reluctant to offer credit to small-scale contractors without collateral or sureties.

5.3 Inadequate Financing of Training Programmes

Financing of the training programmes has been project based and dependent on donors. This had grossly affected the training programme prepared by NCC whereby only 62% was achieved. Some of the anticipated programmes could not take off because of changes of minds by donors. For example, World Bank withdrew support

for training contractors in Dodoma, Singida, Tabora, Kigoma, Mara and Rukwa regions. Likewise DFID withdrew financial assistance on training of paved road resealing contractors.

5.4 Inadequate Access to Equipment

Due to lack of equipment, it has been very difficult for the trained contractors to achieve the planned target. These small contractors cannot purchase equipment because prices are prohibitive and beyond their control. Most of them depended on the open market where availability of appropriate, reliable equipment in good order is usually a problem. In regions where equipment hire units are available the hire rates offered are also very high.

5.5 Trained Contractors more Informed

There have been cases where it was found that the trained contractors are more informed than their Employers. For example some of the trained contractors can price their tenders more realistically using rates built up from first principles. As a result arguments always rose when contractors were advised by their Employers to reduce their rates.

6.0 THE FUTURE STRATEGIES FOR CONSULTANTS AND CONTRACTOR DEVELOPMENT PROGRAMMES

There is a need to have joint efforts from all the stakeholders to assist in the promotion of contractor development through training programmes. The Construction industry Policy has identified strategies to be pursued as follows:

- a) Promoting application of best practice standards on productivity, quality management and appropriate state-of-the art delivery arrangements.
- b) Supporting the establishment of financing facilities for construction sector enterprises to access working capital in terms of credit, bonds, guarantees, training funds, and capital for tools and equipment.
- c) Establishing sustainable arrangements for provision of construction equipment to the industry
- d) Promoting meaningful joint venture arrangements and other forms of strategic alliances among local firms and with foreign firms.
- e) Ensuring both local and donor procurement policies to provide a comprehensive framework for fostering the local construction industry in Tanzania.
- f) Establishing a co-ordinated and systematic comprehensive approach for managing and financing training e.g. in form of a levy.

- g) Ensuring that no works shall be carried out within the Country without the involvement of the local players.

7.0 REFERENCES

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4. NCC paper on Role of the NCC in the Development of the Construction Industry and status with the LGA Councils – Dar es Salaam, 2005