

DEVELOPING A CONSULTANT AND CONTRACTOR BASE

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ABSTRACT

*The Construction Industry is an essential contributor to the socio-economic development process of any country. The Industry has as its customers, virtually every industry, public or private sector organizations and even households; if not for new constructions then for repair and **maintenance** either through the formal or the informal sector.*

Since independence there have been a number of initiatives geared towards fostering the local construction industry. Despite such interventions, the state of the local construction industry has remained poor. Performance constraints include inadequate capacity of local contractors and consultants, erratic work opportunities and poor state of the economy. Tanzania is now embarking on a long-term development strategy that aims at achieving sustainable human resources development.

The Consultants and Contractors Involvement Component (CCIC) of the Road Sector Support Programme (RSSP) is in its third year of implementation (July 2002 – June 2003).

This is a Civil Engineering Consultants and Contractors development programme, financed by the Swiss Agency for Development and Cooperation (SDC) and Tanzania Roads Agency (TANROADS). For ownership and sustainability reasons, two trade Associations manage the programme, where the Association of Consulting Engineers Tanzania (ACET) manage Consultants Training, the Tanzania Civil Engineering Contractors Association (TACECA) manages the contractors training. The programme is also having a Supporting Agent (SA) who is having an advisory role. There is a Steering Committee composed of all big Stakeholders, which oversees the programme.

Contractors go through classroom training, demonstration phase (5 weeks) and Trial contract phase; So far 79 Contractors have been trained in gravel road works and 14 in bridge and river training works. The National Construction Council (NCC) is the appointed trainer for contractors.

Consultants are exposed to the full cycle of main activities, i.e. conducting studies design and then supervision. All three stages include classroom and field training. 25 Engineers from 11 firms have gone through gravel road works training and 15 senior engineers from 9 firms and 3 from the roads agency have undergone bridge and river training works, training.

The trainees gained confidence, which is the most positive result of CCIC. Most of them managed to stabilize their companies; some even managed to employ more permanent staff and purchased at least some basic equipment. SDC and TANROADS are ready to finance another phase to consolidate the acquired benefits. This paper gives in brief the organisational structure of the programme and some good and bad lessons learnt.

Key Words: Construction industry, consultant and contractor development, Road construction

1.0 Background

The Role of a well-maintained road infrastructure system to the socio- economic development process of any country cannot be over emphasized! Tanzania is having about 85,000 km of road, out of which 75,000 are regional and rural roads. Only about five percent of these roads are paved. In any economy roads are like blood vessels to the body, they have direct impact to rural production, access to markets and modern production technology and thus the growth of the economy. A vibrant, reliable and competent **construction services industry** is an essential contributor to the well being of the road network.

Historically, the Swiss Agency for Development and Cooperation (SDC) has been working in the country in a number of development projects since mid sixties. One sector, which received substantial financing from SDC, is road infrastructure development. With time the emphasis shifted from financing physical works only to also address the issue of capacity building. Another major shift in internal policies came at the beginning of nineties where emphasis shifted from carrying out works using force account system to more outsourcing to private contractors and consultants. At this juncture it was evident that capacity was lacking from private service providers and efforts from different institutions including donors to support capacity building in the private sector, started. One such initiative was the Contractor Involvement Component (CIC) of the Morogoro Roads Support Project (MRSP), financed by SDC.

The Consultants and Contractors Involvement Component (CCIC) of the Road Sector Support Programme (RSSP) is a three-year development programme that draws its experience from the Contractors Involvement Component (CIC), MRSP III (1996-2000).

Whereas CIC was almost wholly financed by SDC, the software part of CCIC is financed by SDC and Tanzania National Roads Agency (TANROADS) finance the physical works using money from the Roads Fund. For ownership and sustainability reasons, two trade associations manage the programme, where the Association of Consulting Engineers Tanzania (ACET) manage consultants training and the Tanzania Civil Engineering Contractors Association (TACECA) manage the contractors training. The programme is also having a Supporting Agent (SA), who is having an advisory role. There is a Steering Committee composed of some major stakeholders, which oversees the programme.

2.0 Programme Goals And Objectives

Overall Goal

Development of a sustainable and internationally competitive local construction industry.

Project Goal

Adequate number of capable local consultants and contractors is available for road works in Tanzania.

Objectives

- The Contractors Associations are strengthened and gender sensitive.
- The competence, capacities and business footing of CCIC trained contractors are improved.

- The Association of Consulting Engineers Tanzania (ACET), representing the interests of a majority of local civil engineering consulting firms, is strengthened, gender sensitive and active.
- The performance of local civil engineers in design and supervision of road works and bridges is improved.
- CCIC trained contractors and consultants are gender sensitised.

3.0 Programme Organization

Contracting Parties

The contracting parties are the Governments of Tanzania and Switzerland. Whereas the authorities responsible for the overall application of the Road Sector Support Agreement are the Ministry of Works (MoW) on Tanzanian side and the Swiss Agency for Development and Co-operation (SDC) on the Swiss side.

Implementation Responsibility

Programme implementation on the Tanzanian side, is the responsibility of TACECA ACET and TANROADS, whereas according to the agreement SDC – Dar es Salaam office and ITECO Engineering Ltd, as supporting Agency, are responsible on the Swiss side.

Monitoring

The overall monitoring (including approval of annual plans) is provided by a component Steering Committee (SC) comprising the following personalities.

Steering Committee

(i)	TACECA Chairperson	-	SC Chairperson
(ii)	ACET Chairperson	-	SC Vice – Chairperson
(iii)	MoW Senior Official	-	Member
(iv)	Director of Maintenance, TANROADS		Member
(v)	Director of Development, TANROADS		Member
(vi)	Road Fund Manager		Member
(vii)	Coordinator Infra+Trans sector SDC		Member
(viii)	Head, R+Br. Dept. ITECO Eng. Ltd		Member
(ix)	Consultants and Contractors Advisor		SC Secretary (ITECO)

The Steering Committee meets twice every year to receive progress reports and also approve plans and discuss any problems facing the programme.

4.0 Consultants Training

The consultants training is designed in such a way that trainees will get opportunity to pass through all three major stages of a project, i.e. training on how to conduct **studies**, training in **design** and training in **supervision**.

The course focuses on the practical side of training and also management aspects. The course covers gravel road works, bituminous road works and bridge & river control works.

Selection of Trainers

ACET advertises or identifies reputable trainers from the local market or from abroad in case of specialised training and invite proposals for the programme. In any case the selection is done by ACET training committee based on experience and competence. Competition must be guaranteed. A panel comprising representatives from ACET and CCIC do the final approval. The winning team will, upon agreement, sign a contract between themselves and ACET.

Selection of Trainees

For the consultants training the criteria are as follows,

- The applicant must satisfy the following conditions,
 - Have a Degree in Civil Engineering
 - Have work experience specified for the type of training they want to pursue.
 - Have sponsorship by a registered local C.E. Consulting firm
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- The sponsoring firm must be ready to pay a participation fee to be fixed by ACET.

Advertisement

ACET advertises its intention to conduct training either in a local newspaper or by sending letters to all registered local C.E. Consulting firms, or preferably do both. The notice is sent well in advance and must outline the intended training, specify eligibility and invite interested consultants to apply.

Classroom Training (Gravel Road Works)

After selection, trainees spend one week for classroom training for each of the three modules i.e. Study, Design and Supervision followed by working on an actual project.

Preferably, the trainees should attend one-week classroom on one of the modules and then proceed straight to the practical part of the same module.

In an ideal situation each firm will sponsor two engineers and it will get a job for itself but this was not always achieved and what actually happened was some firms who managed to register only one trainee had to do the practical part of the training as joint ventures.

Trial Contracts

Since the consultancy trainees were expected to design and supervise trial contracts carried out by trainee contractors, the timing for their training was in such a way that the design of the selected stretches will be ready to match the timing for procurement of the same.

Co-ordination and early start were the main factors to ensure success in this case.

During the first two years, training on gravel road works took place whereas a total of 25 engineers from 11 firms were trained and a total of 144 Kilometers of road rehabilitated. Trainee consultants supervised these works and they successfully completed them.

During the current year (third year) ACET offered training for senior engineers in Bridge and River Control Works. The training will covered **studies**, **design** and **supervision** modules. Classroom training took a total of six weeks. Design of two actual bridges with studies included, took a total of nine weeks and supervision is planned to take about six months.

Fifteen senior engineers from nine firms and three from the roads agency attended the course.

Main Observations

- Consulting firms were very much willing to contribute for the training of their employees. Firms paid one million Tanzania shillings per trainee in the gravel road works course and one and a half million for the bridge course. The private sector is willing to invest in training due to perceived increase in availability of road works.
- The quality of the final product is much better according to TANROADS regional managers due to close **supervision** by the trainees as opposed to the usual **inspection** provided.
- Issues related to financing of practical works need to be looked into in detail to avoid budgetary constraints (elaborated in the contractors part).

5.0 Contractor Training

The Contractor programme is divided into three main parts:

- Classroom training

- Demonstration and
- Trial Contracts

TACECA identifies reputable trainers from the local market and either “sole source” or invite proposals for the programme. In any event, the winning technical and financial proposal will be discussed, negotiated and upon agreement a contract is signed between TACECA and the appointed trainer. The National Construction Council was the selected training provider for all three years of the programme under discussions.

TACECA advertises the training in a widely circulated newspaper in the country and also writes letters to all its eligible members. In both, the advertisement and the letters, TACECA will briefly outline the training, indicate eligibility and invite interested contractors to apply.

Interview

Applicants will then be invited for interview. All applicants (members and non-members) are given equal chance for undergoing interviews, and those who are not TACECA members will be encouraged to join the association because finally (for management and sustainability reasons) all trainee firms must be registered with TACECA.

Interviews are normally arranged in different centres close to the location of the applicants, and the interviews are conducted by the trainer in oral and written formats.

Interviewees who score fifty percent and above are declared to have passed the interview.

In order for a company to qualify, it should have two passed candidates for the supervisory training and one for the manager’s course. It should also be noted that for supervisory training the minimum qualification is holding a Full Technicians Certificate (FTC) or equivalent.

Training Needs Assessment (TNA)

Before finalising the scope of the training, especially the decision on how much time is required for each topic; the trainer shall conduct a TNA on a random sample of the selected firms.

Classroom and Demonstration

Classroom training for supervisors, gravel road works (GRW) is divided into two parts. The first part is a four weeks basic training and the second part (carried after the demonstration phase) is a two weeks advanced course.

Managers course (GRW), starts immediately after the completion of the supervisors’ basic training for a period of two weeks. The timing enables trainee managers to participate in the demonstration project (partially) during their training. Trainee managers are preferably the Managing Directors of their firms or other people with powers to make decisions.

Training on bridge and river training works is slightly shorter where supervisors spend three weeks in classroom training and managers spend only a week.

Classroom training on bituminous road works is also three weeks for supervisors and one week for managers.

After the completion of classroom training all trainees go to a demonstration site where they stay for five weeks with their trainers working in an actual road construction site managed by a firm, which graduated successfully from the previous training cycles, to try and turn the theory into practice.

The timing of the demonstration phase should be such that identification of the site, funding arrangements, design of the section and procurement (including award) is completed well before the completion of the supervisor’s basic training in order to ensure continuity of the training programme. There should not be any break between classroom and demonstration stages.

Trial contract stage follows the demonstration and the two-week advanced classroom stages. During trial contracts, contractors are given a package each with magnitude equivalent to about nine weeks work. Overall assessment then follows after the completion of the trial stage. The programme has so far trained 116 supervisors and 79 managers in gravel road works all from 79 registered contracting firms. In the current year also a total of 22 supervisors and 11 managers from 11 registered contracting firms have been trained in bridge and river control works.

Main Observations

- Financing for the physical works was not set aside by the Government as in the case of soft ware parts which had a specified level of funding and hence ease in planning.
- Delay in implementation of trial contracts led to executing some of the works during unfavourable weather conditions and a big backlog of trial contracts.
- Availability of proper construction equipment is still a big problem as it has been the main reason for delay in most of the financed packages.
- The quality produced by trained contractors was much better than what they were producing before training and it was appreciated everywhere they worked.
- The price of the trained contractors was comparatively higher than their untrained counterparts but the quality generally justified the difference.
- Trainees need more inputs in the areas of financial, contract and site management

6.0 Training in the Construction Industry (The Present and the Future)

The Existing Scenario

Currently a number of training initiatives are ongoing in the industry. These initiatives, diverse and uncoordinated, are carried out by Government institutions, donor agencies and private sector associations. In any case this paper does not suggest the abandonment of any of the initiatives mentioned but rather **sees the importance and the urgency to coordinate the currently fragmented efforts** in order to maximize the benefits accrued from our total efforts. Three things are important in defining such a coordinated effort by the industry,

- Best services to the customer (contractors and consultants)
- Cost to be borne by the customer
- Sustainability of the training as a service

Best services entail suitably designed training and according to needs. The training must be affordable and paid for by the customers and the organization should ensure sustainability.

The Immediate Future

As a result of experience gained from the current phase, the Consultants and Contractors Involvement Component envisage the following outlook in the planning of the next phase,

- Try and lobby for an increase of the phase duration from the current 3 years to a minimum of 5 years in order to see the impact of the training.
- Continue with the current training in those regions with the least number of trained service providers.
- Train according to client's needs and plans, e.g. TANROADS is currently looking into applying new technologies like chemical stabilization for insitu soil material and the use of cheap sealing techniques as a way of protecting the investment put on roads, and also the use of new approaches like the "Local Resource Based Approach". The project will try to address these issues in its next phase.
- Gradually shift more responsibility to the owners of the programme, i.e. Consultants and Contractors.

- Consolidate the achievements of the previous phases by taking the successful and most committed contractors and consultants into a higher level by providing large training contracts and offering support and more specific training.

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