

AN EVALUATION OF THE TIPP CONTRACTOR DEVELOPMENT PROGRAMME (FOUR YEARS ON)

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1. INTRODUCTION

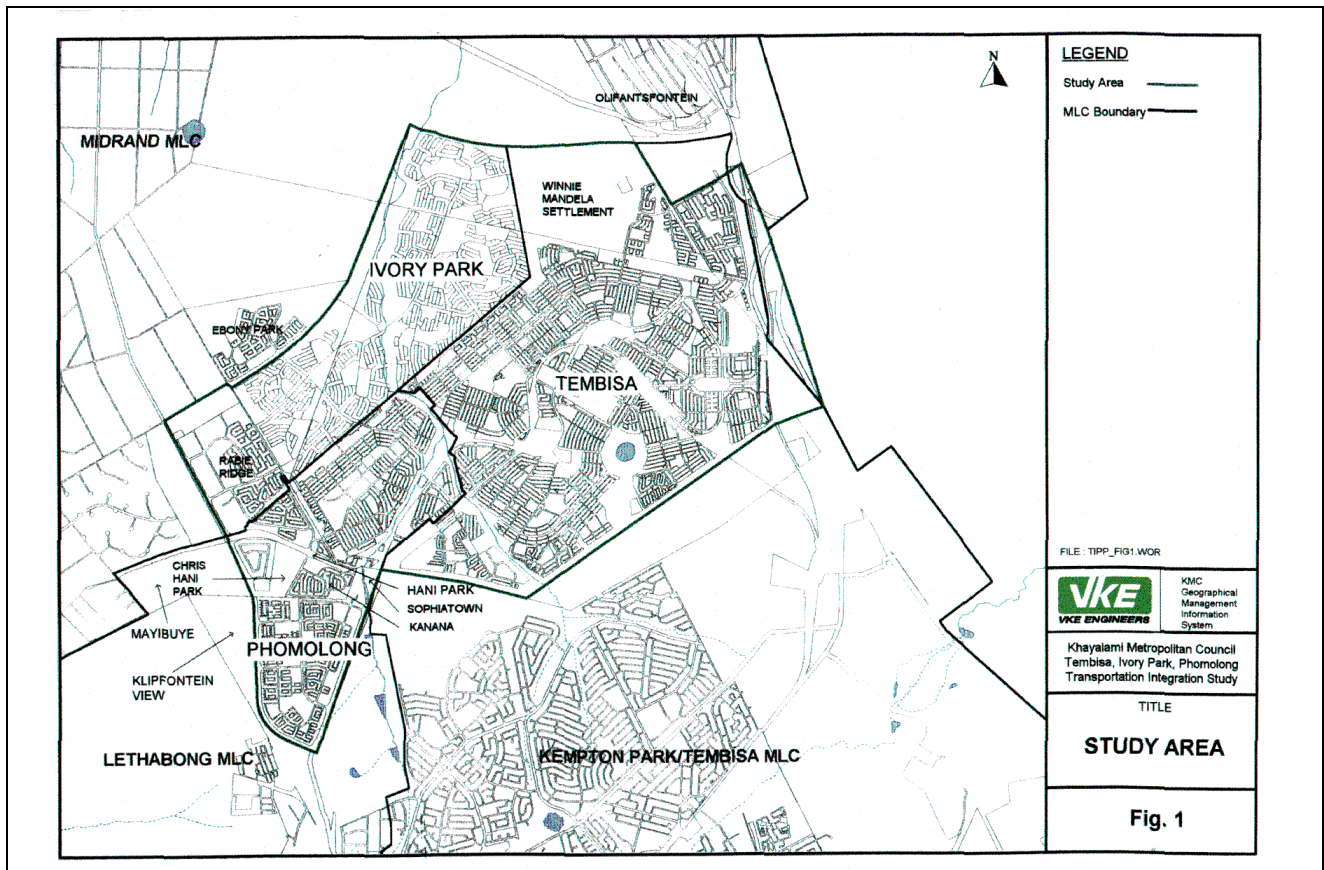
This paper seeks to document the medium term results of the contractor development programme carried out during the TIPP integration process implemented by the Khayalami Metropolitan Council during the period 1997 to 2000. A series of projects were carried out as a contractor development programme and this paper is the result of a survey carried out with the contractors late in the year 2000. It comprised a survey questionnaire which was completed with each contractor. The paper analyses the progress of the contractors who were trained and presents their progress and the results from the intervening period. It highlights the enabling environment elements in the TIPP programme.

2. BACKGROUND

The study area, referred to as TIPP Complex, includes three mainly low income townships namely Tembisa, Ivory Park and Phomolong. These townships are now spread across three Metropolitan Councils but formerly were part of the Khayalami Metropolitan Council (KMC), which is now an entity of the East Rand Metropolitan Council (ERMC). The KMC was implementing a number of projects identified in the TIPP Complex integration study (1), which identified ways and means of enhancing the TIPP Complex by integrating it, both internally and externally, by using transportation more effectively.

The report recommended that pedestrian facilities (i.e. sidewalks) should be provided along routes radiating away from modal change points (or other activity nodes). The largest proportion of local area trips made are pedestrian trips to access a formal mode of transport (32,5%). If one includes the home end of the trip the proportion of all trips that are home to change mode or vice versa is 65%. Pedestrian infrastructure provision was to be incorporated into all upgrading schemes. A large degree of community involvement was recommended. Such involvement took place during planning, design and phased implementation of the construction.

The main objectives of the TIPP Complex Study was to effect transport integration at the level of the man in the street, begin to integrate the areas and be implementable with a small budget. The funds allocated in the implementation thus concentrated on person orientated improvements, rather than large vehicle orientated projects.



A contractor development programme was tailored for the KMC based on established literature (2)(3). Five levels were defined with specific contractor responsibilities, support structures training and levels. The levels are shown in Figure 2.

Most of the contractors evaluated during the initial phases fitted into level 2 and so the walkways contracts were structured accordingly. Material was provided by the materials manager from the site yard. The contractors had to transport the material to the different sites using their own transport. From this development base a number of level 3 and 4 contractors emerged and later contracts including taxi lay-byes were conducted as level 3 contracts and the roads contracts as level 4.

A major focus of this contractor development initiative is the inclusion of a plant component within the programme that created an enabling environment and capacity for the emerging contractors. One of the major barriers to entry for emerging contractors is the lack of access to finance and credit that means that they have difficulty in hiring or purchasing plant for new contracts if they do not have the right equipment. In the level 2 contracts the cost of plant hire (plate compactors), when evaluated against the purchase of the plant, was compatible and one set of plant was purchased for the contractors by the KMC as part of their first contract. As their part of the partnership the contractors took responsibility for its maintenance, fuel, spares repairs and insurance.

FIGURE 2 TIPP CONTRACTOR DEVELOPMENT LEVELS

LEVEL AND CONTRACTOR CLASSIFICATION	CONTRACTOR RESPONSIBILITIES	SUPPORT STRUCTURES	TRAINING
LEVEL 5 MEDIUM CONTRACTOR	COMPLETE CONTRACT	NONE	INDIVIDUAL NEEDS
LEVEL 4 SMALL/MEDIUM CONTRACTOR	LABOUR , PLANT, TRANSPORT, MATERIALS, REDUCED SURETIES	MENTOR OR CONSTRUCTION MANAGER	EMERGING CONTRACTOR DEVELOPMENT TRAINING PROGRAMME
LEVEL 3 SINGLE UNIT EXPERIENCED EMERGING CONTRACTOR	LABOUR, TRANSPORT, PLANT HIRE (OPTIONAL SUPPLY OF MATERIALS FOR SELECTED CONTRACTS)	MATERIALS MANAGEMENT, CONSTRUCTION MANAGEMENT	EMERGING CONTRACTOR DEVELOPMENT TRAINING PROGRAMME
LEVEL 2 BEGINNING EMERGING CONTRACTOR	LABOUR, TRANSPORT	TOOLS, PLANT PURCHASE, CONSTRUCTION MANAGEMENT, FINANCIAL HELP, ADMINISTRATIVE, PROGRAMME, MATERIALS, TECHNICAL	TECHNICAL TRAINING TENDER TRAINING PARTS OF CONTRACTOR DEVELOPMENT PROGRAMME EG STARTING A BUSINESS, RUNNING A BUSINESS
LEVEL 1 ARTISAN/FOREMAN ASPIRANT EMERGING CONTRACTOR	LABOUR	ENABLED TO PARTICIPATE IN LEVEL 2 CONTRACT AS A TEAM LEADER	TECHNICAL TRAINING TENDER TRAINING COPYRIGHT D GERTZEN VKE ENGINEERS 1998

One set of tools was also provided, the contractors were mentored in the opening of bank accounts, wages were paid fortnightly and a construction manger mentored the contractors through the contracts. Thus other barriers to entry in contracting were overcome. At the end of the contract the

contractor had his or her own plant, tools, bank account, knowledge of cashflows, quality and technical ability necessary for running a contract.

The exit /progression criteria per category are the successful completion of one or two of the previous level contracts. The projects have been carried out over a period of 4 years and developed over 15 contractors through the TIPP Emerging Contractor Development Programme (TECDP). The annual budgets have been relatively small (R 750 000 to R 2 million) and continuity of work has been difficult to sustain. This means that the contractors could not rely on the KMC for continuous work. Of the 15 contractors trained 12 eventually obtained contracts and these contractors were contacted. Over 25 kilometers of walkways, 18 taxi laybys and two access roads have been constructed. Contractors have progressed from level 1 (Full contract management support) to level 4 (mentoring and minimal support).

In all the phases the Engineer prepared tenders for the individual contracts and they were advertised as part of an open tender process. There was repeated training during three years in completion of tender documents and pricing of the tenders. The tenders were priced by the emerging contractors and the tenders closed in the normal manner. The Engineer did an adjudication report that was submitted to the Council to be approved through the normal tender committee process. Thereafter, the client awarded the tenders. Material support varied from full support in the early years of the programme to a mentorship mechanism later on in the programme. Financial support to the contractors was supplied through a float account from KMC that allowed for fortnightly payments.

3. METHODOLOGY

Twelve emerging contractors completed various contracts in the TIPP Project during phase 1, 2 and 3. A questionnaire was compiled by VKE and interviews were carried out with each contractor. Ten or 83% of the contractors were interviewed, the remaining two contractors (2)17% could not be located. Of the two, one of the contractors is known to be doing electrical appliances repairs so his subsequent experience is not considered in the questionnaire. Project files and records were also used in the preparation of this paper.

4. TRAINING

The emerging contractors initially received ten days technical training in the construction of block paving using an accredited theoretical and practical training course developed by the Department of Transport. Training was also provided in tendering and estimating at the start of the process and a tender briefing session is held during each tender period. Thirty contractors and foremen were trained in the first and second phase of the TIPP Project, 50% of the trainees were foremen as experience has shown that emerging contractors do not always supervise the work themselves but use a team leader. The process of training the team leader /foreman for each contractor has contributed to good workmanship throughout the contracts. It does, however, empower the foremen with skills that they can use in their own business if they desire and a few of the team leaders have used the opportunity to start their own contracting companies. Contractors were put through a battery of tests as part of another Contractor Development Initiative the KMC set up. This was helpful in assessing and tracking their capabilities. A training programme was sourced and implemented which looked at the contracting business and the intention was to help develop the entrepreneurial/business / management skills of the contractors. It was carried out as a weekly theory and practical session that related to the existing work that the contractors were completing. However, it was found that so many different programmes were being offered by various institutions and municipalities that the contractors were repeating the same training as part of different contracts. Therefore the training ceased on this programme as it was being completed by

other initiatives and was not felt to be cost effective. The contractors training records are still kept by the consultant. The contracts then concentrated on cost efficiency and production. Three years later, of the contractors trained 66% indicated that they are still in civil engineering contracting.

5. RESULTS

5.1 Contractor Statistics

All the contractors interviewed still live in the communities they were trained in; 60% of the contractors live in Tembisa, 30% live in Phomolong and 10% in Rabie Ridge.

Forty two 42% of the contracting companies are owned by Women. All of the contractors are registered as Close Corporations and are registered for VAT.

5.2 Financial Statistics.

The contractors have shown great perseverance and a good deal of success in contracting in the subsequent period. They have won 69 contracts over the past three years with a combined value over 10 million rand. Seventy percent of the contracts carried out are for local government but the second biggest client base has been the private sector. Contracts won in the private sector (20) indicate that the contractors have entrepreneurial ability and are able to compete in a market orientated situation successfully where price is likely to be the ruling factor for the execution of contracts.

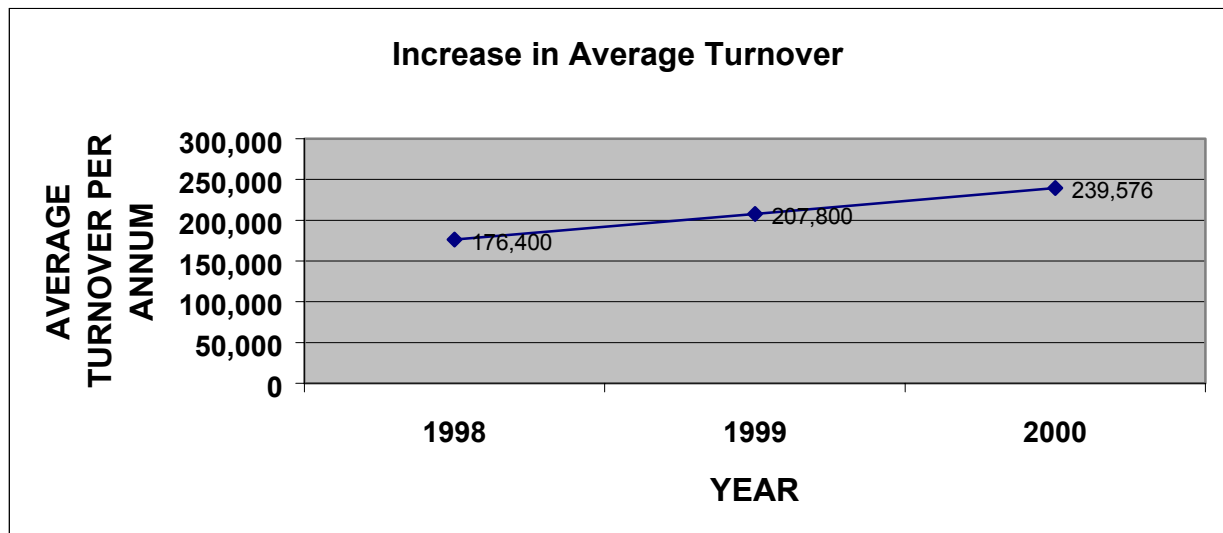
The contractor's turnover has shown a average increase year on year of 18 and 15 percent respectively. However, the spread is wide with some contractors being far more successful than others as can be seen from the high figures for annual turnover. In the contracting environment it is still disturbing to see that there are still contractors who do not gain contracts in any given year. One contractor was accepted onto the Provincial Emerging Contractor programme and the contracts undertaken for provincial government are indicative of this programme.

Table 1: No of number of contracts and value

	Local Government	Provincial Government	Private
No. of contracts	45	4	20
Total value	R 7 125 876.40	R879 191.00	R2 753 886.30
Average value/contract	R 158 352.81	R219 797.75	R137 694.32

Table 2: Turnover Statistics per year

YEAR	TOTAL TURNOVER	Lowest	Highest	Average
1998	1,764,000	0	631,000	176,400
1999	2,078,000	0	430,000	207,800
2000	2,395,756	0	704,900	239,576



5.3 Spread of contracts

The contractors are based in the civil and housing sector and the contracts they have won subsequent to their TIPP contracts reflect this. Various contractors have completed kerbing contracts, stormwater drainage contracts including the laying of pipes, surface drains and various structures. The contractors have constructed RDP housing, a community center, taxi ranks and taxi lay-byes for local authorities.

5.4 Employment Creation

The table below gives the number of persons employed by the ten contractors per annum. A total of 721 persons have gained employment from the contractors. The average number of persons employed per contractor is 24. At the peak of contracts up to 82 persons have been employed. If an average of 5 persons per breadwinner is assumed than the contracts have provided 400 persons per annum with help through the income generated during the contracts.

Table 3: Total Employment Created

Year	No of persons	Lowest	Highest	Average
1998	238	0	82	23.8
1999	242	0	56	24.2
2000	241	0	75	24.1
	721			24.03

6. LIST OF BENEFITS AS STATED BY CONTRACTORS

The following quotes have been taken from the questionnaires to show the benefits of the programme. The quotes show the contractors have gained experience in the full range of contracting and the barriers to entry that existed have been effectively removed. However the assessment is anecdotal as opposed to statistical. Objective assessment of outcomes requires clear competency development criteria in particular subject areas but this paper does not include this due to various constraints (funding and time). We are aware that the contractors responses are often subjective, but the evaluation of competencies is also subjective depending on the assessment parties criteria and worldview of the assessor. A further area of research could be collective, continuous evaluation of the contractors by relevant parties who interact with the contractors eg: technical consultants—project outcomes, training providers – subject matters, mentors—practical competencies and

training co-ordinators –for independent assessments. However the contractors words give an overall impression of the skills gained during the programme.

6.1 Programme and tendering

- “I am able to tender for myself and at present I have managed to handle small projects by myself confidently and produce good quality work and finish within reasonable time.”
- “Through the TECDP I have gained a lot of experience which has enhanced my reputation as a promising future contractor.”
- “Mostly what was of the main interest was learning how to tender, building up the rate and understanding the whole tender document.”
- “This was my first experience on site on my own”
- “Training on paving and tendering was eye opening”

6.2 Financial Management

- “I had an opportunity of opening credit facilities with suppliers without any problems.”
- “Presently, I’m targeting a turnover of R 1 000 000.00 for 2001.”
- “I also learnt how to arrange insurance and surety for my contracts”

6.3 Business Expertise

- “I have an established office which is equipped with a computer, fax machine and a typewriter which makes me professional in my work.”
- “I also learned how to run my business, do marketing and interpretation of drawings.”
- “I learned how to negotiate with clients, being it for material or plant.”
- “It gave me confidence to look for jobs and associate with organisations that are in construction, like SAWIC, BCC, BIFSA and SAFSEC.

6.4 Tools and plant access

- “ I have also managed to add more tools and equipment to the set I received during training i.e.2 plate compactors, bomag and tools and for this reason I am able to handle medium sized contracts.”
- “I also managed to have my first tools and equipment through TECDP.”
- “I was motivated to look deeper into construction”
- “In terms of tools, I would recommend that all training companies and institutions follow TIPP’s method, so that emerging contractors can benefit

The following benefits were also stated by the contractors as having been important as part of the training and mentorship programme. The contractors expressed appreciation for the knowledge passed on to them (often repeated) regarding programming of the contracts and tendering. This helped them in the following:

- Programming the execution of the works
- Interpretation of drawings, specifications and related contractual matters.
- Workforce structuring, employment and management.
- Guidance to expedite work progress/improve productivity.
- Setting out of works.
- Safety measures and legislative requirements.
- Tools and equipment.
- Financial matters, e.g. opening bank account, invoicing etc.
- Training.
- Security aspects.
- Quality control systems.

In all contracts the effective handling of materials is important to the success of a project. The programme has different levels that introduced the contractors to materials handling. The materials handling was divided into three areas.

- Minor materials which the contractors had to organize themselves,
- Medium value materials where there was discretion. Contractors could ask for help if required
- Major items where the supplier required a cession form before materials would be delivered.

The mentoring process for the major items of materials was carried out as follows. Sub accounts were opened for each contract with an overall holding account by the Engineer. The contractors were given limits (the size of their contract). The contractors interacted directly with the supplier, ordered their materials and kept the delivery notes. Monthly invoices were sent by the supplier to the contractors and they reconciled these with the delivery notes. A summary was also sent to the Engineer. Before any materials amounts were paid the contractor had to produce a reconciliation of the delivery notes and the invoice. Thereafter payments were made.

Training and mentoring was provided on:

- Establishment of stores.
- Determination of stores administration procedures.
- Determination of stores staff requirements.

- Acquisition of material i.e. suppliers.
- Issue of materials.
- Handling the asset register.
- Insurance of assets

7. CONCLUSION

This contractor development programme can be said to have been a success. It has produced 10 contracting companies who have the skills and have become sustainable businesses. It has provided skills, overcome barriers and contributed to employment creation and the improvement of peoples quality of life. However although an enabling environment was created by the KMC it is in a large part the contractors involved in the programme who have made it a success as projects and funding have not been continuous. What characteristics in the contractors have contributed to the success? The following are an indication of the important attributes necessary for successful programmes:

- The contractors should have a passion for construction and want to succeed.
- There should be proper handling of workforce, suppliers and equipment in fairness from the beginning of the programme.
- Honesty
- Good management.
- Learn from big contractors – approach them for work
- A vital ingredient is good cash flow management and keeping tab on debts

The contractors have also stated the following:

- Always be on site and get your hands dirty.
- Employ a trained supervisor which helps when you are not there.
- Make workers your partners and friends
- When encountering problems keep your workers informed.
- Identify with your workers.
- Believe and have confidence in myself.
- Profit should not be not the main priority as you will not get rich quickly
- Have a balanced life.
- When in crisis with debtors speak to your suppliers.

The TIPP ECDP has been successful in that it has: integrated different modes of transport, developed small contractors, provided visible service delivery and created employment by being fully labour intensive.

The contract philosophy means that the barriers to entry that normally prevent emerging contractor from participating in the formal contracting environment were removed.

The Contractors administered their Construction Works in accordance with their programmes and the requirements of the specifications, supplied labour, plant, transport, materials and sureties for other projects outside the programme.

Over the last four years, 66% of the Contractors have succeeded in the contracting industry, they have created employment for 24 persons per contract and improved their turnover per annum.

It has produced 10 contracting companies who have the skills and have become sustainable businesses. It has provided skills, overcome barriers and contributed to employment creation and the improvement of peoples quality of life. People now walk to their modes of transport not on dusty or muddy paths but on walkways.

8. REFERENCES

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