INTEGRATING INFRASTRUCTURE AND SMALL ENTERPRISE DEVELOPMENT WITHIN LOW-INCOME COMMUNITIES:

The Khuphuka Concept

Derek Miles and John Ward

MART Working Paper No. 12

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It is no small matter to assist in the birth of a new city….

Neville Shute, A Town Like Alice[*]

[*] Shute, Neville. *A Town Like Alice*. Heinemann, London, 1950. p.311.

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THE MART INITIATIVE

The Management of Appropriate Road Technology (MART) initiative commenced in 1995 with the aim of helping to reduce the costs of constructing, rehabilitating and maintaining road infrastructure, and vehicle operations in economically emerging and developing countries (EDCs). It is based on a research project funded principally by the Department for International Development (DFID). The initiative is led by the Construction Enterprise Unit of Loughborough University's Institute of Development Engineering, in association with two UK-based specialist consultants Intech Associates and I.T.Transport. MART is currently implementing its initial 3 year programme.

The MART programme seeks to support sustainable improvements in road construction and maintenance in developing countries. This implies the effective use of local resources, particularly human resources and readily available intermediate equipment (especially wheeled agricultural tractors and related ancillary equipment). To optimise the use of scarce financial resources, it also requires the effective mobilisation of the indigenous private sector (particularly small domestic construction enterprises), and the application of good management practices in both contracting and employing organisations.

The current phase of the MART programme will *inter alia* draw together existing expertise in labour- and intermediate equipment-based technology and the development of private construction enterprises to produce a series of guidelines on the four priority topics of:

- handtools;
- intermediate equipment;
- private sector development; and
- institution building.

The MART initiative is strongly research-based, and both the DFID and the MART partners see its main impact as providing analysis and codification to support practical project initiatives. Thus, as well as dedicated MART Working Papers, much of the output will be in the form of articles in academic journals and other formal publications suitable as reference material and providing an independent and reliable record of the advancing state of the art.

MART welcomes dialogue with engineers, equipment designers and manufacturers regarding designs, products or experience with the objective of the promotion of a sustainable road sector technology and management approach for EDCs.

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SYNOPSIS

Low-income communities need both jobs and adequate infrastructure. By mobilising neglected entrepreneurial skills Khuphuka, a South African NGO, has helped such communities to respond to these needs by creating cohorts of competitive small construction enterprises. The paper describes the Khuphuka concept of *training linked to production*, and how it has been applied to contractor development in the small town of Alice in the Eastern Cape Province.

This paper commences with a brief review of the principles of small enterprise development and of recent South African initiatives, leading to a description of the approach adopted by Khuphuka since its establishment in 1991. The Alice case illustrates the methodology for determining the practices, problems and training needs of emerging construction enterprises, and lists the training priorities for this typical urban community. The resulting training programme was arranged in ten modules, and was accompanied by counselling/mentoring sessions to ensure that the new techniques were effectively applied.

The Khuphuka concept offers an interesting model for stimulating entrepreneurship and mobilising local capacity for providing and maintaining infrastructure. The MART initiative believes it deserves to be brought to the attention of a wider audience, as a contribution to developing a more coherent and replicable approach to sectoral small enterprise development project design and execution.

Abbreviations

ABA	Alice Builders Association
DFID	Department for International Development
DPW	Department of Public Works
ECDP	Emerging Contractor Development Programme
EDCs	Economically Emerging and Developing Countries
ILO	International Labour Organization
IYCB	Improve Your Construction Business (ILO handbooks and workbooks)
MART	Management of Appropriate Road Technology
NGO	Non Governmental Organisation
SIYB	Start and Improve Your Business (ILO project)
SIYCB	Start and Improve Your Construction Business

1. INTRODUCTION

Developing countries invest $200 billion a year in new infrastructure - four per cent of their national output and a fifth of their total investment. In poor countries, it is particularly important that such significant investments achieve value for money. There is a growing international consensus that market forces and competition can improve the production and delivery of infrastructure services, since technological change and regulatory innovation have made possible the unbundling of activities - the separating of activities in which economies of scale are not important from those in which they are (World Bank, 1994, p52). Competition is crucial in protecting consumers against monopoly power. Regulation is essentially a means of preventing the worst excesses of monopoly; it is not a substitute for competition. It is a means of 'holding the fort' until competition arrives. Consequently, the process of privatisation should focus on securing the most promising conditions for competition to emerge, and protecting competition from abuse (Littlechild, 1983, p. 7).

2. PRINCIPLES OF SMALL ENTERPRISE DEVELOPMENT

This fragmentation of tasks could bring about an increasing potential market for small construction enterprises in the construction and maintenance of public works, providing they are able to compete effectively with larger firms. From a broad developmental standpoint, small enterprises offer a variety of advantages in comparison with larger firms (Neck and Nelson, 1987, pp. 7-8), including:

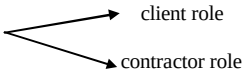
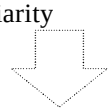
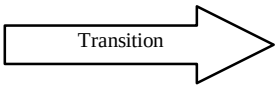
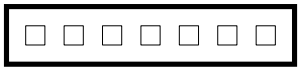
- making effective use of local materials and resources;
- creating jobs at relatively low capital cost (small enterprises are more likely to choose employment-intensive solutions);
- providing a vehicle for introducing a more equitable income distribution;
- employing workers with limited formal training, who then learn skills on the job and provide a pool of local skills that will favour future economic development; and
- adapting flexibly to market changes.

In relation to the construction industry, the difficulty is that many developing countries lack a resourceful and experienced small enterprise sector which could be readily mobilised to meet new market opportunities. Indeed, until recently, in many developing countries, small contractors were a forgotten - or even disdained - group (Edmonds and Miles, 1984, p. 31). The increasing interest in their practices, problems and needs is timely since, over and above the broad advantages listed above, they can potentially offer the best value for money to clients on small, disparate and often geographically dispersed schemes, and without a network of efficient small contractors it is difficult or expensive to provide basic facilities such as schools, rural health centres, village water supplies and low cost roads (Relf, 1987, p. 7).

The five S's

The following principles are intended to guide the search for an integrated approach to mobilising private sector capacity, including the delivery of system support during the period of transition from comprehensive public sector provision of infrastructure to a situation where the is a ***split responsibility*** between the public sector in a client/regulatory role and the private sector undertaking the operational work of construction and maintenance (Miles, 1997). With decision-making becoming fragmented, the principle of ***subsidiarity*** suggests that these decisions should be devolved as close as possible to the ultimate client. ***Sustainability*** is more likely in projects with an avowed ***small enterprise focus*** and external intervention in the form of ***system support*** is often required during the period of transition. The relationship between these five S's is summarised in Table 1.

Table 1 Principles of mobilising private sector capacity: The five S's

Principle	**Explanation and implications**
Split responsibility 	The role of the public sector will change from monopoly supplier to client/market regulator. Responsibility for service delivery will be transferred to a number of independent contractors, and regulation will be achieved through contractual procedures and supervision.
Subsidiarity 	As a result of the fragmentation arising from *split responsibility*, decision-making will be fragmented. The principle of subsidiarity requires that decisions and execution should be devolved to the level closest to the consumer/beneficiary.
Sustainability 	All interventions should be designed to achieve sustainability over a period on the basis of contractual obligations being granted and met in a properly regulated market.
Small enterprise focus 	Following the principle of *subsidiarity*, and to ensure competitiveness in a situation which could easily degenerate into monopoly/oligopoly, it is necessary to promote the use of small-scale enterprises.
System support 	Where there is no strong tradition of private sector involvement in infrastructure provision, some form of institutional intervention will be needed to provide encouragement and support during the period of *transition*.

Source: Miles, 1997

Delivering system support

Above all, the system should be *replicable*. Small-scale enterprise promotion is an expensive business, and it is possible (perhaps paradoxically) to achieve considerable economies of scale by deliberately planning projects as components of larger programmes so as to:

- achieve co-ordinated interventions;
- reach a large target group;
- take advantage of the commonality of management problems;
- utilise material that has been well-prepared and tested; and
- deliver an appropriate mix of business and technical skills.

There is some published material which can either be used for self-teaching or can be employed within the context of training programmes, including the ILO business package

Improve Your Construction Business (IYCB), consisting of three 'handbooks', each with a companion 'workbook' including checklists and a reference guide, together with advice on how to prepare an action plan and practical suggestions on how to bring the plan to fruition (Andersson et al, 1994-96).

3. SOUTH AFRICAN INITIATIVES

- Some of the most interesting current initiatives are occurring in South Africa, where the Government believes that emerging construction related small to micro enterprises (SMEs) can significantly contribute to the realisation of key economic and redistributive objectives for the following reasons (Department of Public Works, 1997):

- They can be powerful generators of income and employment opportunities since they generally use less capital investment per unit of output than larger enterprises;

- SMEs can be more competitive than larger firms on certain types of small, disparate and geographically dispersed projects because they generally have relatively lower overheads;

- The relatively low entry barriers in terms of skills (technical and managerial) and capital requirements make SME contracting an important entry point for historically disadvantaged persons into the construction industry; and

- Given the above, SMEs can lay the foundation to decentralise the construction industry if they provide a platform for future medium and large scale firms owned and controlled by historically disadvantaged persons.

The Department of Public Works (DPW) has initiated an Emerging Contractor Development Programme (ECDP), so as to foster synergy between the three fundamental stakeholder groupings:

- The National DPW, which can provide work opportunities and has the authority to facilitate an environment in which emerging contractors have the opportunity to develop themselves into competent market-competitive contractors;

- Emerging contractors, which are technically competent but lack knowledge of the Department's procedures, competitive estimating techniques, business management and also access to finance, supplies, transport and communication;

- Other organisations, which have an inherent interest in the development of emerging contractors and who have resources which emerging contractors require. These organisations include other government departments, the private sector and NGOs.

Drawing upon its IYCB experience, the ILO is assisting in this process by implementing a DFID-supported pilot Start and Improve Your Construction Business (SIYCB) management and basic skills training programme for emerging contractors.

This paper presents a case based on the experience of one of the South African NGOs, and is intended to contribute further to the process by offering an example of how entrepreneurs can be identified and helped to learn as they build.

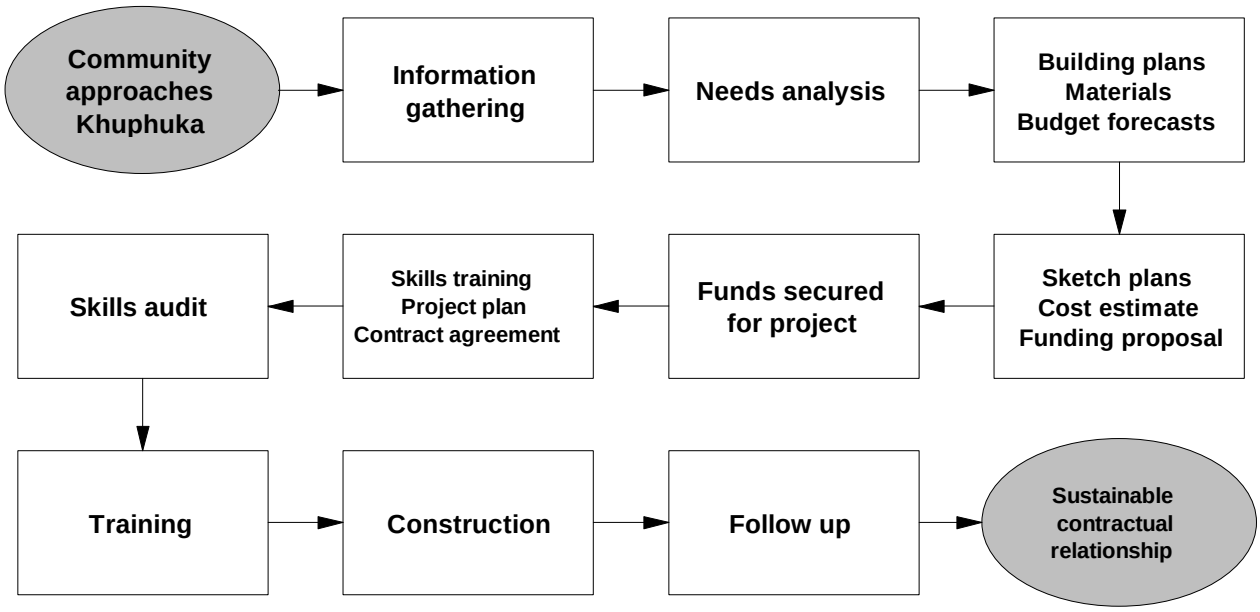
4. KHUPHUKA

Khuphuka was established in 1991 as a voluntary association by a group of community leaders who were concerned at the lack of economic opportunities available to the majority of people in KwaZulu-Natal. Their objective was to set up an organisation that would, through *training linked to production*, provide people with an entry point to the economy, while strengthening community structures and promoting development. The priority target groups are 1) community groups who are engaged in development or about to engage in development, 2) unemployed young adults (especially women - at least 30 per cent), and 3) emerging and current entrepreneurs, such as micro manufacturers and building contractors (Cominos, 1996). The Khuphuka concept is that the interests of these three groups are complementary, in that community groups could provide a market for the contractors, and the contractors could provide local employment opportunities. The catalyst for bringing this about is the range of Khuphuka training programmes based on the following precepts:

- Lack of exposure to formal education does not imply lack of intelligence.
- If an emergent contractor can do the job, then he (or she) can price it and plan it.
- Experience is a contractor's greatest asset.
- The majority of small-scale contractors would prefer to be independent operators, but circumstances may force them to become sub-contractors.
- Training programmes should focus on confidence-building, sustainability and self-reliance.
- Training and development must go hand-in-hand.
- Time is money.

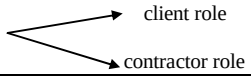
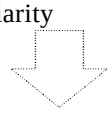
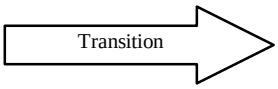
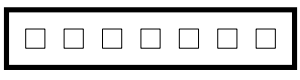
Instead of simply trying to provide short term (and probably unsustainable) employment opportunities, Khuphuka aims to create *employers*, who will in turn create employment. The prospective employers are members of local communities, who participate in the community development process as partners with Khuphuka and learn the skills of identifying and implementing project opportunities. The 10 stage process is illustrated in Fig. 1, starting when a community approaches Khuphuka and leading to sustainability through client/contractor relationships founded on mutual understanding and respect. An important feature is the emphasis on information gathering and needs analysis to permit careful targeting of the parallel training and production processes.

Fig. 1 The Khuphuka community development process



The way in which Khuphuka applies the five S principles is illustrated in Table 2.

Table 2 How Khuphuka applies the Five S Principles

Principle	**Explanation and implications**
Split responsibility 	Communities take on client/commissioning role, while selected entrepreneurs from within the community take on contractor role.
Subsidiarity 	Communities become fully involved in decision-making, and gain self-confidence.
Sustainability 	Training programme and mentoring encourages clients and contractors to accept greater responsibility.
Small enterprise focus 	Contractors learn importance of cost-consciousness during training/mentoring sessions, and are enabled to become more productive and competitive.
System support 	Khuphuka provides comprehensive support in project identification and initial implementation, but recognises importance of fostering self-sufficiency.

Three levels of training

Training is provided at three levels:

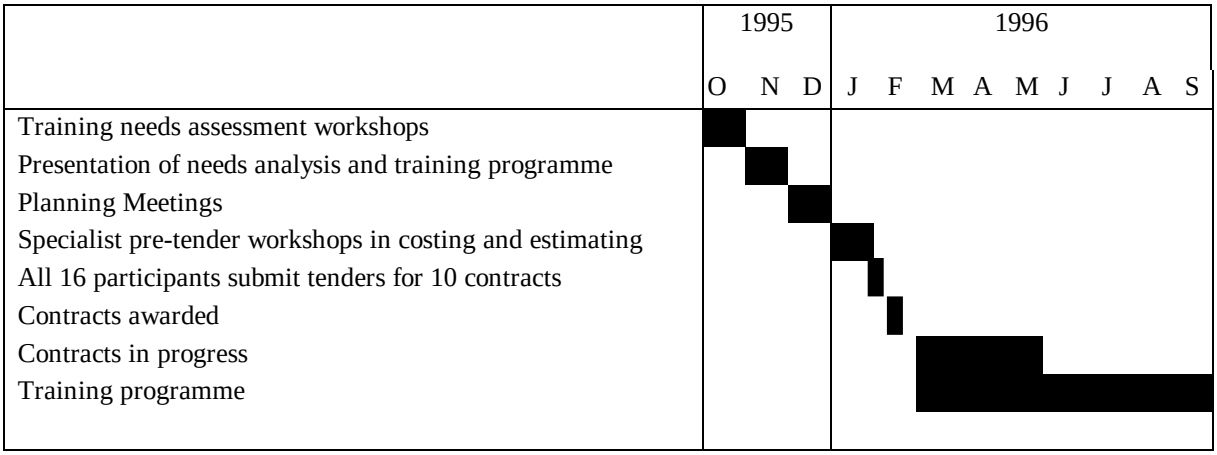
Table 3 The three levels of training provided by Khuphuka

	Level 1	Level 2	Level 3
Entry	• Community contractors • Skilled labour • Large contractors' supervisory staff • Labour-only sub-contractors	• Successful completion of several labour-only sub-contracts • Experience of sub-contracting on large projects	• Successful completion of several full contracts • Manufacturers of diverse sectoral products
Classification	• Emergent contractors • Sectoral micro-manufacturing enterprises • Labour-only sub-contractors	• Small scale labour-only sub-contractors • Small scale sectoral manufacturers • Specialist labour-only sub-contractors	• Small to medium scale contractors • Specialist sub-contractors • Sectoral manufacturers
Training	• Basic costing and estimating (labour-only) • Organising a small labour-only contract • Money management and cost control	• Pricing the job • Running the job • Cutting job costs • Scheduling and costing • Specialist resource persons/ mentors • Site visits	• IYCB modular programme • Construction professionals as resource persons/ mentors • Site visits
Development	• Incubators • Preparing basic tenders • Understanding tendering procedures • On-site mentoring	• Focused tendering workshops • On-site mentoring • Access to finance • Counselling clinics • Introduction to contractors' associations	• Specialist workshops • Financial advice • Counselling (on- and off-site • Involvement in contractors' associations • Professional advice and services

5. A TOWN LIKE ALICE

Alice is a small town in the Eastern Cape Province with a severe unemployment problem. The Alice Builders Association (ABA) consists of 16 small-scale contractors who had survived on simple works, mainly minor works maintenance projects for the Alice Municipality. The ABA is affiliated to the Eastern Cape Builders Association and the national African Builders Association, and its members sought assistance to enable them to establish their businesses on a firmer footing. In keeping with Khuphuka's 'training through production' approach, the training programme was linked to a physical construction project. Utilising donor funding from the German Government, the Alice Urban Upgrading Programme provided for the refurbishment of the 150 year old Alice Town Hall. Khuphuka was asked to devise a 12-month training and development programme, which would be available to the 16 ABA contractors plus a further 16 informal sector emergent community contractors.

Fig.2 Alice Urban Upgrading Programme project schedule



Training needs assessment

The first activity was a training needs assessment workshop to:

- identify partner institutions to support/work with small contractors;
- identify those small contractors and their workers needing skill training;
- identify training needs for the contractors and their workers; and
- design a training programme based on training requirements.

25 questionnaires were distributed to small-scale contractors, based on a model previously tested in Ghana in which the respondents were requested to assess their needs for training on 42 suggested topics (Miles and Ward, 1991). All were completed and returned. As shown in Annex 1, most contractors saw a “great need” for training and management development in all 42 topics, with a minority seeing “some need” and very few opting for “small need” or “no need”. The rankings by order of preference are set out in Annex 2.

Four additional topics were raised which were not specified in the questionnaire:

- How to work within the legal sphere
- Know your rights as a building contractor
- How to plan for your retirement as a contractor
- Record keeping on site

The training programmes was based on ten complementary modules which were grouped according to the outcome of the needs assessment exercise, drawing upon a range of basic training material that has been developed, tried and tested on a range of previous projects. They follow a pattern which combines topics to meet perceived needs with continuity of training, with module 1 aiming to meet the most urgent needs and subsequent modules aiming to reinforce and strengthen the growing business competence of the participants.

Table 4 Training modules

No	Title
1	Preparing to be a contractor.
2	Preparing for the estimate.
3	Preparing an estimate for a labour-only contract.
4	Materials purchase and control. Quality control.
5	Money management and cost control.
6	Getting paid for work done.
7	Site planning and scheduling.
8	Running a contract profitably.
9	General contract administration.
10	Understanding and using contract drawings.

It is notable that the contractors felt that their "greatest needs" lay in those subjects from which they have traditionally been excluded, for example:

Contract Preparation: Emergent contractors were rarely, if ever, consulted or included at the preparation stage.

Ordering materials: This may indicate that they wish to deal directly with suppliers, rather than through materials managers or main contractors.

Self - financing: This could express a desire to become independent operators.

Quality Control: This perceived need demonstrates the aspiration of many small contractors to achieve a high standard of quality and building standards.

The contractors were asked to list their most serious problems (see Table 5). Inadequate training and skills development underlies many of these problems, as is reflected in the training needs analysis.

Table 5 Ten common problems faced by the Alice contractors

PROBLEM	POSSIBLE SOLUTION
1. Not enough contingency money allowed in municipal contracts	The Association should be consulted at the project planning stage about contractors' roles on the project team and job costing.
2. There are no local institutions providing training	Provide a training programme
3. Lack of surveying skills to set out works in advance of construction. This causes delays and loss of money.	Training in basic skills for setting out and site measurement, in reading and understanding drawings, and technical drawing.
4. Inadequate business skills • Measuring quantities. • Pricing (estimating) • Bidding (tendering) • Cost Control • Marketing • Cash flow • Filing • Time-keeping • Construction Accounting • Buying (materials purchasing) • Materials control to stop waste • Tool and equipment purchase	Training in contract administration should be provided, with an emphasis on financial skills such as estimating, pricing and cost control.
5. No electrical skills or contractors in the Alice Community	Training in electrical skills to be provided
6. Management courses are not presently available in Xhosa.	Training materials to be prepared in Xhosa. Trainers to be Xhosa (or Zulu) speaking.
7. There are no trainers in the Alice Community	ABA and Alice community, to select candidates to be trained as trainers.
8. Lack of safety training.	Include in training programme
9. Lack of first aid training	Include in training programme
10 Lack of technical drawing skills	Include in training programme

Contracts for production

The refurbishment project was managed by Khuphuka and divided into ten separate labour-only, minor-works contracts which were let by competitive tender procedures to ten of the ABA members (see Table 6). Each contractor was permitted a 20 per cent allowance for overheads and profit.

Table 6 Alice Urban Upgrading Programme: Initial contracts

Task	Labour Rands	Overheads and profit Rands
Excavation and concrete to strip footings	4,300	860
Build toilet block	8,800	1,760
Kitchen alteration and extension	3,600	720
Plumbing	8,000	1,600
Carpentry	6,300	1,260
Electrical installation	4,173	835
Demolition and groundworks	3,600	720
Internal painting and glazing	10,710	2,142
Sand floors and re-varnish	6,800	1,360
Painting external walls	9,000	1,800
Sub-totals	65,283	13,057
Ad overheads and profit	13,057	
Total	78,340	

6. CONCUSIONS

The methodology of interactive and practical training evolving symmetrically with hands-on construction management techniques, was seen as crucial in enabling the emerging contractors to cope with their responsibilities under their contracts. A new measure of self-confidence was evident in their dealings with all stakeholders, due the perceived enhancement of the contractors' abilities to tender for, manage and control the costs of their contracts.

The value of the programme was proved in a practical way in the latter part of 1996 when a leading South African contractor won a large contract to provide the infrastructure for the Alice Housing Development Programme. The Client was the Alice Municipality and acting on advice given to them by the Town Clerk, the main contractor decided to use the ABA firms as sub-contractors. Interviews with the main contractor's management team revealed:

- The small-scale contractors had demonstrated unusual knowledge and confidence while negotiating sub-contract agreements.

- The sub-contractors' grasp of the principles of productivity, improved work methods, payment incentives and the responsibilities of both main and sub-contractor was of a far higher standard than they had encountered previously.

- Quality control and keeping to the programmed time schedule were high priorities with the sub-contractors, and the usual prompting on these issues was not necessary.

- Relations with individual sub-contractors were excellent. The sub-contractors made their profits, the main contractor completed the work within the specified cost, quality and time limitations and the Client was satisfied with a job that had been well done with a large input from local contractors.

Will the improvements be sustainable? The Alice Municipality was impressed by the

performance of the local construction enterprises and has invited them to submit direct tenders for the construction of the houses, a privilege which in the past was reserved for large scale contractors from outside the Alice Municipal District. Furthermore the German donor agency GTZ and the Urban Upgrading Programme are planning further development projects in Alice, which will involve Khuphuka in the delivery of a more advanced training and development programme for not only the original ABA 16 but also for 16 other informal sector emergent community contractors.

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Response to training needs assessment questionnaire

Annex 1

Subject	Great Need	Some Need	Small Need	No need
Estimating and tendering				
Why the site should be inspected before pricing the job	22	2	1	-
How to read and understand plans. How to measure and take levels on a small site	17	5	2	1
How to prepare simple plans for a building or job	15	7	1	2
How to "take off" drawings to find out the quantities of materials required for the job	23	1	1	-
How to calculate labour costs	16	7	1	1
How to calculate plant costs	21	3	-	1
How to calculate materials costs	20	3	2	-
How to calculate transport costs	16	7	2	-
How to calculate other costs and overheads	18	5	2	-
How to submit a properly prepared quotation in a professional way	21	3	1	-
Project planning				
How to work out rates to be used for calculations (allowables)	17	8	-	-
How to draw up bar charts	16	6	2	1
How to draw up labour schedules	18	4	1	2
How to draw up plant and transport schedules	19	2	1	3
How to draw up materials schedules	18	5	1	1
How to check on progress	14	6	2	3
How to stop delays on the work	17	3	3	2
Productivity				
How to improve methods of working	15	8	1	1
How to achieve more efficient site layout	16	5	2	2
How to improve on site activity	18	5	1	1
How to improve productivity	15	6	2	2
How to achieve more effective site supervision	18	6	-	1
How to go about solving problems	14	9	1	1
How to go about making difficult decisions	10	10	2	3
Book-keeping and money management				
How to go about funding a job or contract. How to deal with banks	23	1	-	1
How to organise cash-flow	19	6	-	-
How to measure work prepare and present payment certificates	21	3	1	-
How to recover the costs of overheads. How to find the causes of loss or profits	18	7	-	-
How to claim for additional costs when presenting certificates	17	6	-	2
How to compare the costs on a job and cut them by using other methods of work	17	8	-	-
How to store materials to save on waste, theft and damage. Working with the supplier	23	1	1	-
How to organise and keep a simple set of accounts	17	6	1	1
Contract law, claims				
Understanding and using a standard contract to get a fair deal	23	2	-	-
How to use a working rule agreement as applied to the client-contractor-consultant relationship	19	6	-	-
How to draw up a labour contract that is fair to both employer and employee	18	4	2	1
How to read plans and specifications along with a contract. Changing a contract to get a fair deal	20	3	1	1
Claims for extras through variation orders, site instructions, and site day work records.	19	5	-	1
General Information				
How to go about marketing and selling your product or your company's services	17	7	-	1
Quality control and building standards.	22	3	-	-
Using locally available materials.	17	7	1	-
How to increase output by improving safety and working conditions	18	6	-	1
How to create a healthy and accident-free working environment	17	6	1	1

Annex 2

Training priorities

Priority	Training need
1	Understanding and using a standard contract to get a fair deal
2=	How to "take off" drawings to find out the quantities of materials required for the job
2=	How to store materials to save waste, theft and damage. Working with the supplier.
4	How to go about funding a job or contract. How to deal with banks
5	How to control the quality of your products. How to control your building standards
6	Why the site should be inspected before pricing the job.
7=	How to submit a properly prepared quotation in a professional way.
7=	How to measure work and prepare and present payment certificates.
9	How to calculate plant costs.
10	How to calculate material costs
11	How to read plans and specifications along with a contract. How to change a contract to get a fair
12=	How to use a working rule agreement as applied to the client-consultant-contractor relationship.
12=	How to organise cash flow
14	Claiming for extra payments through variation orders, site instructions, and site day work records.
15	How to draw up plant and transport schedules
16	How to recover the costs of overheads. How to find the causes of loss or profits
17=	How to increase output by improving the safety of your yard or site. How to cut time-loss by your
17=	How to achieve more effective site supervision
19	How to calculate other costs and overheads
20=	How to draw up materials schedules
20=	How to improve on site activity
22=	How to draw up labour schedules
22=	How to draw up a labour contract that is fair to both employer and employee
24=	How to work out rates to be used for calculations (allowables)
24=	How to compare the costs on a job and cut them by using other methods of work
26	How to use locally available materials. How to adapt local materials to your building standards
27	How to go about marketing and selling your product or your company's services
28=	How to organise and keep a simple set of accounts
28=	How to create a healthy and accident-free working environment
30	How to claim for additional costs when presenting certificates
31	How to read and understand plans. How to measure and take levels on a small site
32	How to stop delays on the work.
33	How to calculate transport costs.
34	How to calculate labour costs.
35	How to draw up bar charts.
36	How to achieve more efficient site layout.
37	How to improve methods of working.
38	How to prepare simple plans for a building or job
39	How to improve productivity
40	How to go about solving problems
41	How to check on progress.
42	How to make difficult decisions
	ADDITIONAL NEEDS:
43	How to work within the legal sphere in the contract business
44	Know your rights as a building contractor
45	How to plan for your retirement as a contractor.
46	Record keeping on site.

TRAINING PROGRAMME

		Need (%)
MODULE 1:	**PREPARING FOR THE CONTRACT**	
1.	Understanding and using a standard contract to get a fair deal	90+
2.	How the builder and the supplier can work together to help each other	90+
3.	Understanding the contract documents, plans and specifications	80+
4.	The client-consultant-contractor -relationship	80+
5.	How to draw up a labour-only contract	70+
6.	How to work within the legal sphere	Extra to Questionnaire
7.	Know your rights as a building contractor	Extra to Questionnaire
MODULE 2:	**PREPARING FOR THE ESTIMATE**	
1.	How to measure work content by "taking-off" from the drawings	90+
2.	The Site Inspection: Why the site should be inspected before pricing the job	80
MODULE 3:	**PREPARING AN ESTIMATE FOR A LABOUR-ONLY CONTRACT**	
1.	How to submit a quotation in a professional way	80+
2.	How to calculate labour costs and overheads costs	70+
3.	How to work out rates to be used in calculations	60+
MODULE 4:	**MATERIALS PURCHASE AND CONTROL: QUALITY CONTROL**	
1.	How to store materials properly in order to save on waste, theft and damage	90+
2.	How to control quality so as to achieve a high standard	80+
3.	How to calculate material costs	80+
4.	How to draw up material schedules	70+
5.	How to use locally available materials	70+
MODULE 5;	**MONEY MANAGEMENT AND COST CONTROL**	
1.	How to go about funding a contract. How to deal with banks	90+
2.	Controlling plant and transport costs	80+
3.	How to organise and control cash flow	80+
4.	How to recover the costs of overheads	
	How to control profit and loss	70+
5.	How to organise and keep a simple set of accounts	60+
6.	How to plan for your retirement as a contractor	Extra to Questionnaire
MODULE 6:	**GETTING PAID FOR WORK DONE**	
1.	How to measure work done, prepare and present progress payments	80+
2.	Claiming extras by finding using "loopholes" in the contract.	
	How the contract can be re-negotiated if the original documents are "inequitable"	80+
3.	Claiming extras from variation orders, site instruction and site records.	80+
4.	How to claim for additional costs when preparing progress payments	60+
MODULE 7:	**SITE PLANNING AND SCHEDULING**	
1.	How to draw up plant and transport schedules	70+
2.	How to draw up labour schedules	70+
3.	How to draw up bar charts	60+
4.	How to check on progress	50+
MODULE 8:	**RUNNING A CONTRACT PROFITABLY**	
1.	How to achieve more effective site supervision	70+
2.	How to improve site activity levels	70+
3.	Cutting job costs by improving work methods	60+
4.	How to avoid delays on the contract	60+
5.	How to achieve a more efficient site layout	60+
6.	How to improve the work method	60+
7.	How to improve productivity	50+
MODULE 9:	**GENERAL CONTRACT ADMINISTRATION**	
1.	How to increase outputs by improving safety standards and working conditions	70+
2.	How to market your company	60+
3.	How to go about solving problems and making difficult decisions	40+
4.	Record keeping on site	Extra to Questionnaire
MODULE 10:	**UNDERSTANDING AND USING CONTRACT DRAWINGS**	
1.	How to read and understand drawings. How to measure and take levels on site.	60+
2.	How to prepare simple drawings	40+