

SUSTAINABLE CONTRACTOR DEVELOPMENT THROUGH COORDINATED AND FOCUSED INTERVENTIONS

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1. INTRODUCTION

The development of the construction industry depends on whether there is a supply of competent contractors to meet the demand that society has for built assets. Contractor development consists of many facets, from experience, through formal education, training, mentorship, joint ventures, or even by failure. South Africa's construction industry is presently undergoing transformation from a closed economy, which was serviced predominantly by the large, well-established construction firms to an open market economy with diverse role players from small, start-up businesses to multinational conglomerates.

The major problem in the construction industry at present is that it lacks sound medium sized contracting capacity. If the industry is to grow, both in size and in influence in the economy as a whole, this sector must be developed and grown so that it can support both small and large construction firms.

The problem does not lie in contracting firms alone, and the consulting industry also requires focused development to improve the capacity, knowledge and experience of those firms that have started up recently. This capacitation is important, since the construction industry is closely knit and all aspects impact on others. The industry will not grow if the contracting fraternity alone are capacitated, without similar development of the consulting industry.

Agenda 21 is recognized as the world's statement of intent for sustainable development, and is the culmination of principles established at the Earth Summit in Rio in 1992. Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations, Governments, and Major Groups in every area in which human impacts on the environment. Agenda 21, the Rio Declaration on Environment and Development, and the Statement of principles for the Sustainable Management of Forests were adopted by more than 178 Governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 3 to 14 June 1992.

The Commission on Sustainable Development (CSD) was created in December 1992 to ensure effective follow-up of UNCED, to monitor and report on implementation of the agreements at the local, national, regional and international levels. It was agreed that a five year review of Earth Summit progress would be made in 1997 by the United Nations General Assembly meeting in special session. The World Summit to be held in South Africa in August 2002, will shape the future of a globally defined, sustainable development agenda. The development of contractors in South Africa with skills in management and growth of their businesses will support the environmental objectives of the World Summit. Through focused interventions, this development can maximize the impact of training and mentorship to develop small contractors to a sustainable construction industry.

2. BACKGROUND

The South African construction industry has not experienced a major boom period since the early 1970s and has slowly reduced in size to a critical state where direct interventions are necessary to retain and to increase the capacity. The situation we are faced with today is a legacy of a combination of past business practices, changes in legislation, and the introduction of preferences for Historically Disadvantaged Individuals.

During the 1970s construction boom times, when the industry grew at a rapid rate, the economy was characterized by a large demand for both infrastructure and public assets, and it was at this time that South Africa's road, rail and major infrastructure was built. Large sums were plied into the development of these resources, and this led to a high growth in the construction industry. Many construction firms that were newly established at this time later grew into the multi-national conglomerates of today. This large demand for public assets, coupled with a large, cheap unskilled labour force led to many job opportunities in the construction industry. With the high demand, and the urgency for construction, profit margins in construction grew to be profitable, and it was seen as a very attractive industry to enter. The labour market found lots of

job opportunities, mostly as unskilled labour, but also as artisans, plant operators and junior foremen. Skills have always been in demand, and it was at this time that many skilled artisans, foremen and professionals were lured to South Africa from other countries as ex-patriot contract workers. These skilled persons generally came from Portugal, Germany, France and the United Kingdom, and mostly stayed after their contract was completed, moving to other companies.

The labour legislation of the time led to construction firms employing large workforces, in order to maintain the skilled personnel that they had trained up. Construction companies often found themselves in the position where some of their skilled persons were kept idle at their head offices whilst new contracts were awaited.

With the abolition of apartheid, and the new approach of the government after 1994, several significant changes occurred that affected the construction industry. Firstly the labour law was changed to provide employees with better working conditions and clearly defined the rights that employees have with respect to redundancy, retrenchment and firing. The CCMA was formed, and serviced employees as a champion to fight unfair employment practices. This had the effect that larger employers were required to look carefully at the mix of labour that they employed, in order to minimize the cost of employment as well as the risk where retrenchments, firing or redundancy were considered.

The construction industry soon changed from large employers of labour, to a model that outsourced many of its functions to small businesses that were formed. Typically, when employees were retrenched they found themselves in a very large marketplace that was not employing labour. They then turned to setting themselves up as companies that provided either just labour, or that provided a small function of the construction business. Examples of this are steel fixing sub-contractors, plasterers, tillers, and small builders.

The advent of Targeted Procurement and the concept of preferencing Historically Disadvantaged individuals brought about another shift in the makeup of the construction industry. The use of Targeted Procurement generated a demand for HDI persons and HDI owned companies in the execution of construction work. This was seen as an opportunity for those employees that found themselves out of work, and many of these startup firms were formed. Most of the persons starting up small businesses at this point in time found themselves well equipped to execute the work technically, but very few have any business or management skills.

At the same time, the change of government saw the advent of the so-called "brain drain" where the skilled artisans, foremen, and professionals left South Africa to seek better pastures. Those skilled persons who were brought in to support the boom times of the 1970s left the country, taking many of their skills with them. Those that remained behind are currently of retirement age, and there are very few replacements for them. This brings about a serious situation where both quality and productivity are declining in an environment of more intense competition for an overall smaller industry. South Africa must put in place a strong development drive to reverse address this situation, and grow the construction industry once more.

Contractor development has been a critical function that has historically been largely ignored by most government institutions, and implemented only when required by the private sector in the interests of completing a contract, or achieving contractual commitments of target group participation goals.

3. CURRENT CONTRACTOR DEVELOPMENT PROGRAMMES

The need for contractor development is not something that has only recently been identified. One of the most successful contractor development programmes on record was the Soweto Contractor Development Programme that ran from 1988 through to 1998.¹

Experience in certain dedicated contractor development programmes such as the Soweto Contractor Development Programme run by the then Soweto Council that this can be sustainable. This particular programme ran for upward of 10 years, and developed some of the country's leading black owned contractors. These dedicated programmes have made significant inroads to the construction capacity, however, these have required concentrated sustainable workloads in particular types of work, to allow for training, and capacity building of contractors. When this sustained work type has run out, those contractors that have been trained in that particular line of work, are sometimes unable to make the transition to other fields.

The requirements that are placed on the construction industry, and especially on contractors today is moving more towards turnkey operations, where contractors are required to have multi-disciplinary skills, and to develop further abilities in the operation of their business. This places the small startup contractor at a

distinct disadvantage, since they have developed only a small portion of the skills required for turnkey contracting, and are therefore not able to participate. The challenge is to create an environment that will enable small contractors to develop their business and technical skills to the stage where they are able to compete in many fields of construction.

Integrated Sustainable Rural Development² programme implemented in South Africa. Rural areas worldwide tend to have similar characteristics to those that are found in South Africa. They are characterized by wide spatial dispersion, economic dependency on urban areas and political marginalisation. Approaches to rural development have evolved over time and have ranged from traditional single sector approaches to more integrated approaches. Growing evidence suggests rural development strategies should address both resource allocations and investment decisions. These functions should be decentralised, and local governments and rural communities are to be capacitated to provide their own economic sustainability. Key success factors for rural development include the provision of appropriate training, availability of adequate budget, community empowerment opportunities, and clear institutional flows.

Rural areas in SA have similar characteristics to other rural areas in the world, although past policies have worsened conditions. South African rural areas further include concentrations of both poverty and prosperity, poor rural urban linkages, marginalisation of agriculture, vulnerable groups (e.g. women headed households) and inadequate health services. Since 1994 a range of rural development initiatives has been implemented and government has developed legal and policy frameworks for rural development, with inputs from stakeholders. Some provinces have even prepared provincial rural development strategies. A key lesson learnt is that integration and coordination of capital at a local level is important for sustainability.

The vision of the Integrated Sustainable Rural Development Strategy is to attain socially cohesive and stable communities with viable institutions, sustainable economies and universal access to social amenities, able to attract skilled and knowledgeable people, equipped to contribute to their own and the nation's growth and development.

The Alexandra Renewal Project is another dedicated initiative that has been created, which has as one of its core visions, the creation of a sustainable construction industry within the Alexandra community. At the official opening of Parliament in February 2001, South Africa's State President Thabo Mbeki³ announced a seven-year plan to redevelop Greater Alexandra in Johannesburg. The estimated budget for the Alexandra Renewal Project is R1, 3 billion over 7 years. The vision of the project is to fundamentally upgrade living conditions and human development potential within Alexandra by:

- Substantially reducing levels of unemployment.
- Creating a healthy and clean living environment.
- Providing services at an affordable and sustainable level.
- Reducing levels of crime and violence.
- Upgrading existing housing environments and creating additional affordable housing opportunities.
- De-densification to appropriate land.

Institutional capacity was created when the Ntsika Enterprise Promotion Agency was brought into existence by the National Small Business Act (Act 102 of 1996). The mandate of Ntsika is to render an efficient and effective promotion and support service to small, medium and micro enterprises (SMME) in order to contribute towards equitable economic growth in South Africa. Although this mandate stretches beyond construction, they have identified that the sector that they can be the most effective is indeed in construction. They have established a network of some 25 Tender Advice Centres around the country, and have been established linkages with the Department of Public Works, Telkom and Unisa in their activities.

Additional support was created through Khula Enterprise Finance Ltd, which promotes sustainable access to loans & equity by SMMEs' through Retail Financial Intermediaries by offering a range of financial resources and information to the public. Their main operations extend to offering credit guarantees, and supporting loans to the retail financial intermediaries that apply, whilst they provide support through Regional Equity Funds, the KhulaStart Programme which assists new businesses in starting up, the Thuso Mentorship Programme which assists contractors that have received funding, and their Land Reform Credit Facility. Most importantly, they have a strong interest in the construction sector, as it is possibly the most clearly defined from a contractual point of view.

Through the Emerging-Contractor Development Programme (ECDP), the Department of Public Works is committed to ensuring a steadier flow of work suitable for various categories of small and emerging businesses. Pilot approaches have demonstrated that it is possible to extract information on the amount and types of work suitable for various categories of small and emerging businesses, and to direct these opportunities through applicable procurement mechanisms. This task is facilitated by a database linked to a

register of such enterprises. The ECDP supports and assists emerging contractors by means of their help desks, facilitation access to finance, a carefully structured mentorship programme and a restricted tendering programme. They also facilitate training and mentorship programmes for those contractors registered with them.

4. BENCHMARKING

The European Union has provided South Africa with grant funding to the CETA for the past few years to embark upon the Recognition of Prior Learning (RPL) projects. This initiative is designed to establish the competence and prior learning that people have achieved through training programmes and experience, and linking this assessment to registered qualifications. This is an important tool in benchmarking the skills levels in the construction industry, and is progressing well. The programme has run since 2000, and has been hampered somewhat by the lack of trained and skilled assessors, although this has been addressed, and this capacity has been built up.

The Construction Industry Development Board Act (Act 38 of 2000) goes a long way towards facilitating the benchmarking process for the industry. The act gives the CIDB has the responsibility of establishing a register of contractors and a register of projects. These two instruments will provide the construction industry with valuable data on which to base their interventions. Without being able to identify at an industry sector level what the general requirements of contractors are, and projecting what the impact of particular interventions could be.

There have been several other attempts at establishing a benchmark profile for the construction industry, most notable has been the records maintained by the South African Federation of Civil Engineering Contractors (SAFCEC). The database that SAFCEC has maintained for quite some time, is by no means comprehensive, but does go a long way towards establishing a representative picture of the industry. Projects in both the public and private sector are logged, from the time of tender invitation, through closure, opening and award. Data of this nature can provide a very sound basis for identifying trends in particular public sector organs of state, or for comparison purposes between organs of state and the private sector.

5. CONTRACTOR DEVELOPMENT MODELS

There are many contractor development methodologies that exist, however the models that are used are generally quite simple. The models revolve around the issue of where the budget comes from to provide training or mentorship. The options are therefore limited by the contractual relationships that can exist.

- Provisional items allowed for training or mentorship included in all contracts that fall under the programme
- Separate budget that is provided for training or mentorship outside of contracts
- Training and development budgets included in business plans for individual construction firms
- Grant funding from state institutions combined with structured training or development courses offered by these institutions
- Development of labour only contractors through the appointment of third party management support in the form of construction and materials managers.

The International Labour Organisation operates the Employment-Intensive Investment Programme (EIIP) which is concerned with developing coherent policy packages that combine investments targeted at the needs of the poor with appropriate social policies. This is intended to develop sustainable employment creation and lasting impact on poverty reduction.

The ILO also runs programmes whose major features focus on Technology Development work including Local Level Planning (tools like Integrated Rural Accessibility Planning (IRAP), Community Contracting), Labour-Based Technology (using local resources like labour, materials, skills and funds with the support of light equipment), Small-scale Contracting (capacity building of and support to contractors, consultants and contracting agencies or clients) and Sectoral Programmes (in roads, water, urban upgrading etc.). Much of the work in this area is done through the ILO-ASIST, the Advisory Support, Information Services and Training programme.

The ILO has also developed and run a programme called the Start and Improve Your Business (SIYB) programme, which has run successfully in South Africa for some time. This was adapted by the ILO for the construction industry to read Start and Improve Your Construction Business. This programme has not been implemented very widely in South Africa, but is still one of the more important contractor development programmes available in SA.

The World Bank has recently commissioned a report⁴ which shows the effectiveness of development support over the last 50 years. This report was published on 11 March 2002, and indicates that people in developing countries are much healthier and better educated today than they were 50 years ago. This study shows that development assistance has helped to make these changes possible. It shows that the development community has learned from experience - both success and failure. The warning, however, that is provided in the report is that there is still an immense effort required and many billions to be spent in development aid to achieve similar improvements over the next few years.

During January 2000, a workshop was held at the CSIR, entitled "Towards the Implementation of a National Emerging Contractor Development Programme"⁵, which discussed many of the issues surrounding contractor development. The purpose of the workshop was to promote a consistent and systematic approach to emerging contractor development and a commitment (by the relevant role-players) to work together. The workshop came up with several conclusions that included:

- Understanding of the approach to emerging contractor development
- Promoting access to work opportunities
- Promoting the sustainability of Emerging Contractor Development Programmes
- Implementation strategies and strategic partnerships
- Some immediate recommendations for the way forward

This document focused on the numerous different approaches and initiatives that were being run at that time, and recommended that these be coordinated so that their impact could be enhanced. The extent to which these recommendations have been fulfilled has not been measured, but it can be seen that many of the conclusions are still valid today. What is important is that these conclusions and recommendations should not be lost, but rather updated, and brought to a consistent, coordinated programme for industry development.

A joint venture between the ILO, Department of Public Works, Ntsika, and the Black Construction Council developed from the SIYB programme a comprehensive contractor development training programme that focuses on the business and management functions required to start and grow a construction business. The Contractor Entrepreneurial Training Programme (CET) has become the benchmark for construction management training of first time contractors, as well as contractors that are growing from a one-man managed business into one with a management structure.

6. QUALIFICATIONS

The establishment of the National Qualifications Framework (NQF) and the South African Qualifications Authority (SAQA) through the Skills Development Act (Act 97 of 1998) has created a new environment for training in South Africa. The NQF is the set of principles and guidelines by which records of learner achievement are registered to enable national recognition of acquired skills and knowledge, thereby ensuring an integrated system that encourages life-long learning. The NQF consists of two main legs, namely the establishment of qualifications and setting of standards through the National Standards Generating Body and the Standards Generating Bodies (SGBs) for particular sectors, and the quality assurance of training provision through the Education and Training Quality Assurance (ETQA) functions that reside with the Sector Education and Training Authorities (SETAs). The framework for SAQA is outline in Figure 1.

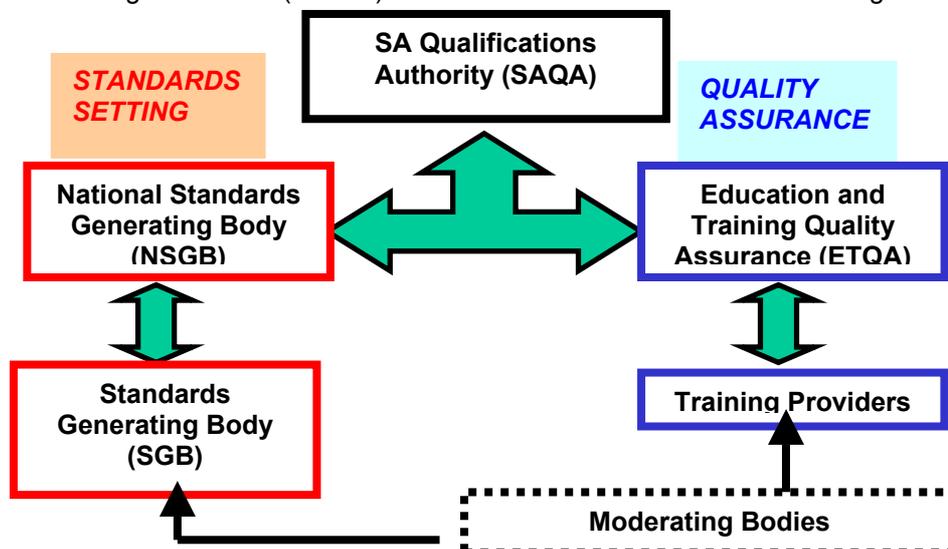


Figure 1. The National Qualifications Framework

Standards must first be established before they can be monitored and learners can only be assessed as being competent once these standards have been established. The NQF operates on the basis of Outcomes Based Education, whereby a learner's skills are measured in terms of his/ her ability to demonstrate outcomes from the training that he has been provided with. Learners are assessed against the standards to identify whether they have the ability to perform the function that they will be certified for. Qualifications and standards registered on the NQF are described in terms of learning objectives or outcomes that the qualifying learner is expected to have demonstrated.

To obtain a qualification, a learner must undergo training, and demonstrate competence in the outcomes of a specified number of unit standards. This means that a learner can achieve a qualification through any number of different routes, either through experience, or through technical training and learning. Outcomes can be measured not only through technical, theoretical testing, but also by demonstrating skills in the area defined by the unit standard. It is important to note that these unit standards are registered at different skill levels. The Recognition of Prior Learning project is designed to bring synergy to the two approaches to qualifications and training, namely the old training system, and the new regime under the NQF.

A qualification registered on the NQF comprises a number of unit standards, at different levels which provide the learner with credits. The requisite number of credits for a qualification differs, depending on the level, and nature of the qualification. This requisite number of credits is determined through the process of developing the qualification requirements.

When it comes to the training material used by training providers, no standards are set. Each training provider is entitled to develop his own training material to prepare learners for assessment in terms of a unit standard registered on the NQF. The test of training material lies in its effectiveness in developing the learner's skills to meet the unit standards of the qualification. The Quality Assurance side to the NQF ensures that standards are maintained through the Education and Training Quality Assurance (ETQA) functions.

The Skills Development Act establishes a Sector Education and Training Authority (SETA) for 25 identified economic sectors in South Africa. This Act makes the SETAs responsible to manage and promote education and training for its sector. This includes approving skills plans, disbursing monies for training, ensuring quality, promoting leadership and offering advice to companies. Companies are required to join one SETA, to which their levies are paid. SARS will collect the levy based on payroll, from every company registered with it, and forward the levies to the appropriate SETA.

Grants from the SETA levies will only be paid out for education and training which is recognised, or accredited through the NQF. Grants can allow employers to recover up to 50% of training costs. Unit standards are required so that training can be accredited.

Although much work has been done regarding the development of unit standards for the construction industry, the process is not yet complete, and will take some time to be fully developed. There are several learnerships that have been registered thus far, mainly in the respective building trades, but also in the area of contractor management. The qualification for a Construction Contractor (Level 2) has been registered with the NQF, and is aimed at the micro and small contractor sector. The CET programme has recently been re-edited to align it with this qualification, and goes most of the way to providing contractors with the knowledge and skills required to meet the assessment criteria of this qualification.

The Construction Education and Training Authorities (CETA) offers the most effective means of skills development that can be found in the industry. Through the Skills Development Act (Act No 9 of 1999), the Sector Education and Training Authorities were made responsible for the development of skills in each sector, through the development of learnerships and qualifications for registration on the National Qualifications Framework. The Construction CETA has a vision to develop a skilled and motivated construction sector workforce whose skills are recognised and valued, in order to improve competitiveness, employability, and labour mobility across the sector. They are currently some 13 learnerships registered in the fields of plumber, community house builder, small construction contractor, earthmoving plant operator, earthcrust drilling operator, bricklayer, carpenter, traditional builder, construction worker, construction foreman, plasterer, tiler and construction painter. Construction firms that contribute their skills development levy to the CETA are able to apply for support in the form of skills subsidies where employees are provided with formal training towards one of the recognized learnerships or qualifications. This is a key facility that is not well understood at present, and which must be harnessed to develop the construction industry.

7. MONITORING OF INTERVENTIONS

Most interventions are run without consistent monitoring. The only data that is available on contractor development is generally intermittent, and has been gathered for academic purposes. Where consistent monitoring can help the task of organizing interventions, through identified analysis and reaction to this analysis by providing the capacitation and development in the areas that are most required.

The greatest challenge that exists today in South Africa lies at the fact that no data is available on how effective interventions are, where they are achieving successes, and which sectors require most assistance. Preliminary studies⁶ indicate that there are serious disparities between sectors in the construction industry, with little capacity in small businesses in the electrical and mechanical sectors, whilst there is a better supply of building capacity. This issue relates to the entrance requirements to these sectors.

Those sectors that require technical qualifications to participate have a clear barrier where these qualifications are not available, or are only available through long-term study or experience. The only means for evaluating whether or not these barriers are being addressed is through the evaluation of participation of the target groups identified.

The Department of Public Works has developed a Mentorship Monitoring System that registers accredited Mentors and links them to contractors through projects. The Mentorship Programme that has been conceptualized for the Strategic Projects Initiative and the Strategic Empowerment Programme for Women goes a long way towards regularizing the mentorship industry. The programme is supported by the Mentorship Monitoring System in tracking the performance of mentors, and the development of skills by emerging contractors. The effectiveness of mentors is evaluated through the increased skills and improved performance of the contractors they provide mentorship to. Performance Indicators have been developed and incorporated into the Mentorship Monitoring System.

Another component that the Department of Public Works has developed is the Training Monitoring System, which tracks skills levels of learners at regular intervals, and which provides information on the performance of trainers and training providers. Key performance indicators also provide guidance on the effectiveness of training interventions.

It is essential to track such performance in order to correctly interpret the outcomes of the individual programmes. Trends quickly become evident if training material is no longer suited to particular learnerships, and amendments can be effected, or alternatives suggested as more effective.

The Soweto Contractor Development Programme utilized professional material and construction managers to assist labour-only and labour and materials contractors to develop additional skills. The growth of contractors was measured over the duration of the programme, and provides some insight into the best methods for sustainable development. The success of the Soweto programme was strengthened by the fact that sustainable work opportunities were provided within Soweto. These work opportunities allowed contractors to develop their skills in the areas of roadworks, plumbing and secondary water mains, which were the infrastructure critically required by the then Soweto City Council. This continuity of work provided a strong foundation for building a contracting business, and many firms went on to execute work outside of Soweto, initially within the same types of work, but thereafter in others. The critical issue, however was that information was gathered on the performance of contractors during the programme, and this provided insight into the capacity that was built and the skills that were learnt during the programme.⁷ One aspect of the Soweto Contractor Development Programme that made it successful was that contractors were used as construction and materials managers rather than professionals in the consulting arena.

8. BUDGETARY CONSTRAINTS

The concept that budget for capacitation is to be provided by the government is one that has to be revised. Budgets from government are closely monitored through the PFMA, and therefore all expenditure must be clearly identified as value for money. Without being able to account for the expenditure, capacitation will be questioned. It is therefore important to be able to quantify the capacity that has been built for the budgets spent through regular, systematic skills audits.

Private sector development is driven through the identification of empowerment partners and small contractors. The small contractors themselves must also provide for their training and development in their normal budgeting processes, and price for this accordingly.

The Skills Development Act (Act 97 of 1998) put in place a fund intended to be used for the development of skills towards registered learnerships and qualifications. The Sector Education and Training Authorities are able to pay out grants to employers, based on criteria relating to the employer's levy payments and the learner's requirements. The skills development levy for the construction industry is administered by the Construction CETA, and can be accessed to provide skills development through both mandatory and discretionary grants. These funds can be accessed to assist all firms in the development of their employees skills, however very few firms make use of these grants to develop their staff. Indeed the CETA is currently undertaking an initiative to promote the claiming of skills development grants.

Increasingly, where turnkey projects are put out to tender, empowerment requirements are imposed on the successful bidder. These bidders are incorporating the costs for running contractor development programmes into the total cost of the project to finance the establishment and development of viable SMME and ABE businesses. Indeed, one of the first projects where affirmative procurement was used, the Malmesbury Prison Project, resulted in substantial successes in the development of new SMME and ABE businesses. The trend has perpetuated itself, and more and more concession contracts result in contractor development programmes being run by the main contractor, in order to achieve the high participation goals that are offered. The success of these programmes is not always evident, and ongoing monitoring of skills, and continuity in the firms that are developed must be performed to measure this success.

9. A MODEL FOR THE EFFECTIVE IMPLEMENTATION OF SUPPLY SIDE MEASURES

A model has been presented for the effective utilisation of public sector procurement as an instrument of social policy. (See Appendix A)⁸ This model is intended to identify the methods that should be taken to develop capacity within target groups in order to ensure that policy outcomes are realized. The crux of the development of contractors lies within the Implementation Phase of the Model, in that procurement and skills must be monitored, measured and logged to allow policy to be evaluated. This analysis can then provide information required to further develop institutional support programmes, or to amend existing programmes to maximize the impact of the demand created by Targeted Procurement.

The model for focused interventions which is presented here in Figure 2 has been identified as possibly the most efficient means of developing the industry, keeping in mind the constraints that we experience in construction. The optimum effectiveness of contractor development programmes will occur where the cost is reduced to a minimum, and money is spent in developing the focused areas that are most critical to the individual contractor's development. To this end, monitoring of contractors' skills must inform the implementation of either training or mentorship programmes, in those areas where the need is greatest.

A monitoring system which is linked into the key areas which will indicate the success of a contractor is the first step. This monitoring system must be maintained in such a way that information on all developing contractors is captured at regular intervals. In this way, the development of the contractor can be tracked over time. If training interventions, or mentorship programmes have been provided to the contractor during that period, these interventions must be indicated, in order to be able to gauge their effectiveness, and the particular skills areas that they have improved. If executed projects are also superimposed on this development graph, then the influence of experience in particular projects can likewise be evaluated.

These three areas will then inform the exact nature of intervention is most effective in which particular area for a particular contractor. These parameters will vary from contractor to contractor, depending on their level of education, experience, skills and knowledge of the industry. Fruitless expenditure can therefore be eliminated by ensuring that only those interventions that will have a measurable effect are implemented, removing the time consuming and expensive hit and miss approach that is often followed.

Certain contractors will respond well to training, whilst others will respond more effectively to a mentorship intervention. By monitoring which process is most effective, an informed decision can be taken on either delivery of training, or mentorship by an experienced and trusted advisor. It has also been shown that a systems based approach is more effective than a theoretical approach where principles are imparted to learners. These systems can then be adapted by the learner for direct implementation in their business.

For sustainability, it is important to stimulate competition between contractors. In the spirit of equality for all South Africans, the skills capacities of all contractors, should be stimulated to roughly the same level, thereby creating a healthy free market economy. The problem of evaluating a firm's capacity and skills remains difficult. The skills of a firm can be represented by the skills of its staff and management. The skills capacity of a firm can therefore be measured through the aggregation of the skills present in the firm's management and employees. Another problem then arises, in that the construction industry suffers from a

high level of staff turnover, and a firm's skills level can therefore not be established for very long. It is therefore desirable to perform regular skills audits of firms, in order to establish trends in skills and capacity development.

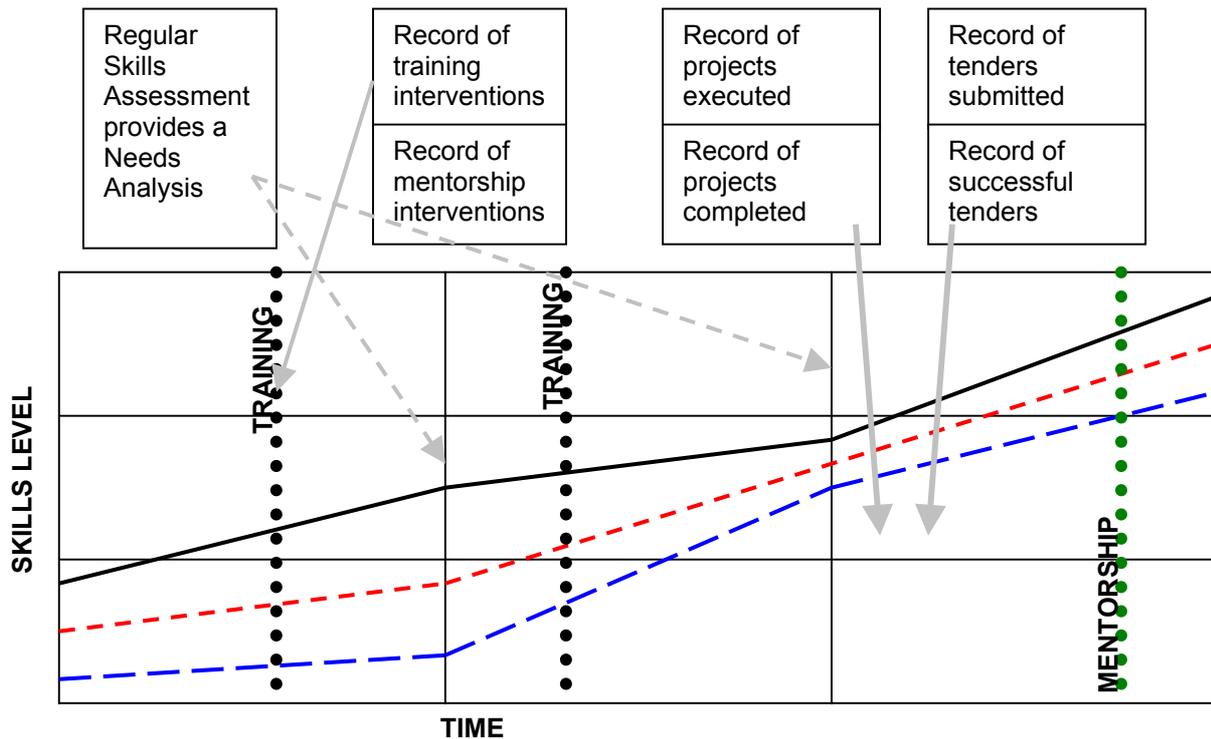


Figure 2: Model for the focused implementation of development interventions based on monitoring information

10. CONCLUSION

The construction industry is recognized as one of the more significant in the South African economy. It has typically been identified as a major source for jobs in the labour sector, and is therefore key in the growth of the country's economy.

The development of the construction industry, similarly depends on whether there is a supply of competent contractors to meet the demand that society has for built assets. Contractor development consists of many facets, from experience, through formal education, training, mentorship, joint ventures, or even by failure. South Africa's construction industry is presently undergoing transformation from a closed economy, which was serviced predominantly by the large, well-established construction firms to an open market economy with diverse role players from small, start-up businesses to multinational conglomerates.

The challenge to the construction industry lies in the focused accelerated development of those smaller construction firms in the market into sustainable medium sized businesses. In order to measure the development of construction firms, it is important to report on the key indicators that show the growth of a firm's knowledge, experience and capacity. Typical indicators include the number of contracts concluded per number of tenders submitted, the skills and knowledge of the key individuals within the construction firm, and the change therein over time.

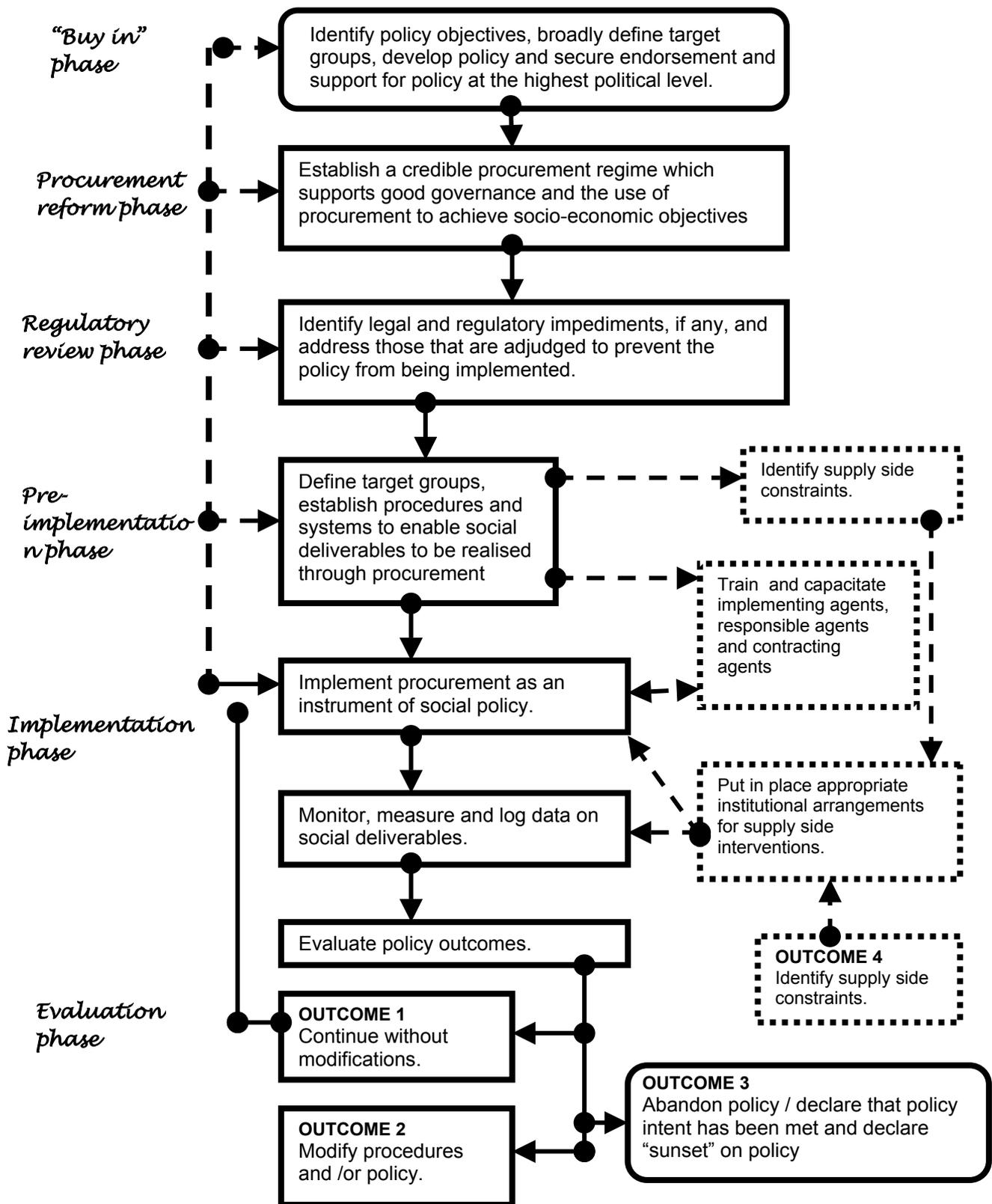
In order to maximize the effect of funds allocated to construction in the development of contracting firms, it is imperative to focus expenditure on those initiatives that will have the greatest effect. Institutional initiatives that are used most commonly are classroom training and mentorship by experienced advisors. It is important to track the number of instances of training and mentorship that a particular contractor has received over a period, to reduce duplication of effort, and to increase the effectiveness of such interventions.

Tools have been developed to permit such measurement to be easily performed, and to allow those organisations that fund training, or mentorship to focus their efforts and match contractors requirements to the interventions that will be best suited to their individual needs. These tools also provide a means of

measuring the effectiveness and efficiency of interventions, by analysing information on the number and values of contracts awarded to contractors in the context of the time when interventions occurred.

The challenge that exists is to coordinate the initiatives of different organisations that provide supply side measures to coordinate their efforts to maximize the effects of these interventions. The most logical is the establishment of a centralised database which tracks the skills development of all individuals and the corresponding capacity of firms throughout the construction industry. This database can then be interrogated by employer bodies to clearly identify the capacity, skills and knowledge of specific contracting firms, in the evaluation of tenders, or by development institutions in the focused targeting of development courses such as training or mentorship. This will put into effect some of the recommendations proposed by the Public Sector Workshop held in March 2000, towards the Implementation of a National Emerging Contractor Development Programme. Time will tell if the will exists to develop a sustainable construction industry as a whole or whether personal gains will become the greater motivation for contractor development.

**APPENDIX A:
A MODEL FOR THE EFFECTIVE UTILISATION OF PUBLIC SECTOR PROCUREMENT AS AN INSTRUMENT OF SOCIAL POLICY**



MODEL FOR THE EFFECTIVE UTILISATION OF PUBLIC SECTOR PROCUREMENT AS AN INSTRUMENT OF SOCIAL POLICY

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