

T13 Infrastructure delivery for Capital projects 2 – linking a social and economic development agenda

Engaging communities to construct their own infrastructure
Use of targeted procurement procedures to provide employment and business opportunities



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Civil engineer's contribution to sustainable development

Design of works

Design for:

- fitness for purpose
- contribution to sustainable development

Design choices

Procurement of works

Structure to

- attain primary procurement objectives
- promote secondary procurement objectives

Procurement strategy

Civil engineer's contribution to sustainable development

Design of works

Design for:

- fitness for purpose
- contribution to sustainable development

Choices in design

Procurement of works

Structure procurement to

- attain primary procurement objectives
- **promote secondary procurement objectives**

Procurement strategy

Procurement – secondary objectives flowing out of Agenda 21

Structure procurement to:

- alleviate and reduce poverty
- promotion of construction technologies that increase employment
- establish and strengthen indigenous building materials

Brown Agenda

- minimising the harmful effects of development on the local environment
- the promotion of the increased use of environmentally sound goods, building materials and construction technologies

Green agenda

Primary procurement objective

To obtain the required goods services or works in accordance with a system that is fair, equitable, transparent, competitive and cost effective

Secondary procurement objectives

Procurement policy that promotes objectives additional to those associated with the immediate objective of the procurement itself

Examples – ISO/DIS 10845-1

Promotion of small and medium enterprises (SMEs), poverty alleviation, job creation, local economic development, business equity, HIV-Aids prevention, skills transfer, skills development, construction industry development, quality standards, environmental standards, sustainability, etc.,

Procurement – secondary objectives flowing out of Agenda 21

Structure procurement to:

- alleviate and reduce poverty
- promotion of construction technologies that increase employment
- establish and strengthen indigenous building materials

Brown Agenda

Employment of business opportunities

Procurement reform in South Africa

Based on two pillars

- Good governance
- The use of procurement as an instrument of social and economic policy

Primary objectives – SA constitution required procurement system to be fair, equitable, transparent, competitive and cost effective

Secondary objectives – black economic empowerment, development of small, medium and micro enterprises, poverty relief / employment intensive construction, local economic development

Employment of business opportunities

ISO / DIS 10845-1 Construction procurement — Part 1: Processes, methods and procedures based on same primary objectives

International usage of procurement as an instrument of socio-economic policy (Oxford university)

- To stimulate economic activity;
- To protect national industry against foreign competition;
- To improve the competitiveness of certain industrial sectors;
- To remedy regional disparities;
- To achieve certain more directly social policy functions **eg creation of jobs; promotion of fair labour conditions, use of local labour, and increased utilization of the disabled in employment; prohibition of discrimination against minority groups; improvement of environmental quality; and encouragement of equality of opportunity between men and women.**

Engaging small enterprises in the delivery of construction works: why and how

“The why”

- global / regional reasons and organizational reasons

“The how”

- targeted procurement procedures and incorporating requirements into contracts

Will illustrate the why and the how through some case studies over the years

“The Why”

“...the labour absorptive capacity of the small business sector is high, the average capital cost per job created is usually lower than in big business and its role in technical and other innovation is vital for many of the challenges facing South Africa's economy”.

“SMME sector has proven to be a highly significant vehicle for black economic empowerment”

WHITE PAPER ON NATIONAL STRATEGY FOR THE DEVELOPMENT AND PROMOTION OF SMALL BUSINESS IN SOUTH AFRICA (1996)

“The Why”

“small scale enterprises are more liable to choose employment intensive solutions rather than large scale enterprises and that the location of construction activities in the hands of small scale contractors places a significant portion of the expenditure in the hands of the local communities”

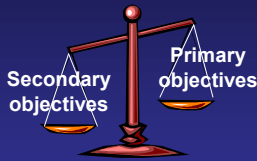
GREENPAPER ON PUBLIC SECTOR PROCUREMENT REFORM - 1997

“The Why”

- The increasing of local labour, goods and services, ‘local content’, can make a major contribution to the achievement of the UN's Millennium Development Goals
- Can
 - improve the local economy
 - lower project costs
 - help ensure infrastructure is well maintained
- Supporting local business can also reduce project social risks relating to community acceptance

ENGINEERS AGAINST POVERTY AND INSTITUTION OF CIVIL ENGINEERS - 2008

Striking the balance



Methods of policy implementation

- Method 1: Set asides Public Procurement Law Research Group – Sue Arrowsmith
 Method 2: Qualification criteria
 Method 3: Contractual conditions
 Method 4: Offering back
 Method 5: Preferences at the short listing stage
 Method 6: Award criteria (tender evaluation criteria)
 Method 7: Incentive payments
 Method 8: Product / service specification
 Method 9: Design of specifications, contract conditions and procurement processes for the benefit of particular suppliers
 Method 10: General assistance

Good governance concerns

- 1 Loss of economy and inefficiency in procurement
- 2 Exclusion of qualified tenderers from competing for tenders
- 3 Reduction in competition
- 4 Unfair and inequitable treatment of contractors
- 5 Lack of integrity or fairness.
- 6 Lack of transparency in procurement procedures.
- 7 Failure to achieve secondary procurement objectives through procurement

Concerns revolve around how fair, equitable, transparent, competitive and cost effective is the system

Risk analysis

Method	Concerns	Impact	Deliverables
Set asides	Discriminatory	Captive market	Guaranteed
Qualification criteria			
Contractual conditions	Cost effectiveness	Distorts market	
Offering back	Unfair	Uncertainty	Uncertain
Preferences at the short listing stage	None if margin of preference / incentive is reasonable	Minimal impact if margin is low	Promoted but not guaranteed
Award criteria			
Incentive payments			
Product/service specification	Cost effectiveness	Distorts market	Guaranteed
Design specifications, contract conditions etc to benefit specific suppliers	Cost effectiveness	Distorts market	Uncertain

Targeted procurement

Process used to **create a demand** for the services and supplies of, or to **secure the participation of, targeted enterprises** and targeted labour in contracts in response to the objectives of a secondary procurement policy

Basic techniques and methods

- 1 measurement and quantification of the participation of targeted enterprises
- 2 definition and identification of target groups
- 3 unbundling of contracts / third party management support
- 4 granting of tender evaluation points (price – preference or quality)
- 5 provision of financial incentives for the attainment of key performance indicators in the performance of the contract
- 6 creation of contractual obligations to engage target groups in the performance of the contract

NB procurement outcomes need to be measured and evaluated

Targeted procurement principles

1 Targets / key performance indicators / specific goals, which reflect the required objectives, need to be:

- definable
- measurable
- quantifiable
- verifiable
- auditable

in order to make them contractually enforceable

A goal without action is just a wish

KPIs are quantifiable measurements, agreed to beforehand, that reflect the critical success factors of a project.

Key performance indicators must as such reflect the project's goals and be quantifiable

Engagement of targeted enterprises

1

Enterprises :

- main contractors
- joint venture partners
- subcontractors
- suppliers
- service providers
- manufacturers

Contracting entity

Full supply chain

Engagement of targeted labour

Employees:

- Permanent
- Temporary

Own or subcontractor

A four level performance framework

Goal (end objectives)

A broad statement of intent

Level 1

Qualitative requirements

Requirements stated in qualitative terms that sets out what is required to achieve the end objective without specifying how this is to be achieved

Level 2

Quantitative requirements

Quantitative requirements which enable the qualitative requirements to be satisfied within nominated parameters

Level 3

Evaluation

Confirmation that nominated performance is achieved

Level 4

Measuring participation using a specification

1

Provide business and employment opportunities to specified targeted groups

Objective

Level 1

Engage targeted enterprises indirectly or directly in the performance of the contract

Performance description

Level 2

Engage targeted enterprises to the extent that a contract participation goal (a percentage of the value of the contract which represents the inputs of targeted enterprises in the performance of the contract) established for the contract is satisfied

Performance parameters

Level 3

Evaluation

means of satisfying contract participation goals

Level 4

Contract participation goals

Engage targeted enterprises to the extent that a contract participation goal (a percentage of the value of the contract which represents the inputs of targeted enterprises in the performance of the contract) established for the contract is satisfied.

Performance parameters

Level 3

targeted labour - amounts spent on wages and allowances paid to such labour

targeted enterprises - receipts for work or services performed or for the provision of goods for a contract

targeted enterprise partners in a structured joint venture - the portion of the financial value of the contract for which such enterprise is responsible

Resource specification - topics

1

- Target
- Target Groups
- Achieving the Contract Participation Goal
- Goal Credits
- Employer's Remedies
- Conditions attached to obtaining Contract Participation Goal Credits
- Substitutions
- Compliance
- Verification Documents
- Records and reporting

- written contracts
- proof of receipt of payment
- declaration affidavits

Resource specifications

South African National Standards

1

- Participation of targeted enterprises **SANS 1914-1**
- Participation of targeted partners in joint ventures **SANS 1914-2**
- Participation of targeted enterprises and targeted partners in joint ventures **SANS 1914-3**
- Participation of targeted enterprises and targeted labour (local resources) **SANS 1914-4**
- Participation of targeted labour **SANS 1914-5**

Currently being converted into ISO 10845 series of International Standards

What resource specifications do

- Lay down the manner in which the prime or main contractor must structure and marshal his resources in the performance of the contract
- Define and set goals for the engagement of targeted groups
- Set out the manner in which goals can be quantified, measured, verified and audited

Records and reporting

Contractor required to :

- Submit a schedule with his programme of work which indicates expected commencement and completion dates of work and services performed by Targeted Enterprises
- Prepare report and attach to payment claims which sets out :
 - what Targeted Enterprises have done
 - the estimated value of work performed by Targeted Enterprises (cumulative and for payment period)
- Prepare a schedule which lists the names, identify numbers, gender, period of employment, wages and allowances etc of targeted labour

Compliance check when services of target group no longer required

- Contractor to certify amount paid to targeted enterprises / targeted labour
- Targeted enterprises / targeted labour to certify / sign the amounts that they have received

Defining target groups

2

Enterprises may be defined on the basis of factors such as locality status as a small, medium, or micro enterprise, ownership, operational responsibilities or control, (or a combination thereof), by marginalized population groups

Labour may be defined on the basis of factors such as gender, race and ethnicity
residency
age
disability
period of unemployment
level of skill (wage levels)

Unbundling of contracts

3

Small-scale enterprises can either:

- directly with the employer
- or
- perform work as a subcontractor, supplier or service provider to a main contractor in the delivery chain.

Employer breaks contract down in size, with or without third party management support

Contractor break contract down to in size to achieve contract participation goals

Unbundling of contracts

3

Contracts can be broken down (unbundled) into smaller contracts to increase SMME participation but only do so when:

- there is administrative capacity to administer the increased number of contracts; and
- the unbundling does not result in an inappropriate division of responsibilities, increased contractual risk, duplication of establishment charges and under-utilization of resources.

Warning

Granting of tender evaluation points - option 1

4

Tender evaluation points can be offered for an enterprise's status e.g SMME, B-BBEE contribution, woman ownership, etc

Example

Category of preference	Number of tender evaluation points	Satisfy definition for target group (Y=yes)
•Woman owned enterprise	3	
•Small or micro enterprise	7	
•Business located within ... and paying local taxes to	4	

Granting of tender evaluation points – option 2

4

Tender evaluation points can be offered for a tenderer's undertaking to achieve in the performance of the contract a contract participation goal (KPI) relating to

- securing participation of SMMEs within supply chain
- employment of targeted labour
- entering into joint venture with the SMMEs

Example

A maximum of n tender evaluation points will be awarded. The basis of award of evaluation points is:

$$N_p = (n \times D) / X$$

where

D = tendered Contract Participation Goal

X = the maximum Contract Participation Goal above which no further tender evaluation points are awarded, namely %.

n = maximum number of tender evaluation points

eg if n = 10, D = 20% and X = 40%, then $N_p = 10 \times 20 / 40 = 5$

Sanctions

4

Penalty applied unless contract participation goal is not met due to :

- quantitative under runs
- elimination of items contracted to targeted groups
- reasons beyond the contractor's control

Penalty = 1,5 (say) times more severe than preference applied to price in the evaluation of tenders

Financial incentives

5

Participant	Contribution and objective	KPI	Target	Measurement arrangement	Amount of payment if target is achieved or improved upon
contractor	Engagement of Small and Micro Enterprises	cpg	25%	SANS 1914-1	R xxxxxx
			30%		R yyyyyy
			40%		R zzzzzz
contractor	Joint ventures with SMMEs	cpg	20%	SANS 1914-3	R ppppp

Contract participation goal

Contractual obligations

6

Contractors may be required to

- subcontract a percentage of the work to SMMEs
- contract goods or services from SMMEs
- enter into joint ventures with SMMEs
- contract a specified quantum of targeted labour

Goal is attained by requiring contractors to achieve a minimum contract participation goal in accordance with the requirements of a part of SANS 1914

Alternatively, contractors may be required to subcontract specific portions of a contract to SMMEs e.g. using ISO /DIS 10845-3 standard conditions of tender

Monitoring and evaluation

Create index which measures the estimated total amount of money paid to the target group expressed as a percentage of the total value of contracts awarded

Also measure cost premiums if preference is used e.g. ratio of awarded price to lowest acceptable tender

Supply side measures

Appropriate technology choices are necessary to increase demand, particularly where increases in employment per unit of expenditure and the use of local resources are targeted

Needed to enable targeted enterprises to overcome barriers to competing for tenders or for participating in procurements within the supply chain, e.g. access to

- bridging finance
- securities
- mentorship
- capacitation workshops

Constraints facing entrepreneurs

internal constraints

deficiencies in numeracy and literacy, managerial, administrative and commercial skills and technical knowledge, which inhibit business efficiency and over which an entrepreneur has direct control provided that support structures are in place

Address through the provision of training and mentorship and exposure to business practices such as joint venture relationships

external constraints

market distortions, prevailing socio-economic structures, for example, laws, regulations, procurement procedures, perceptions and access to finance and opportunities, all of which are beyond the entrepreneur's control.

Address by creating an enabling environment

CIDB Specification – example (www.cidb.org.za)

CIDB Specification for social and economic deliverables in construction works contracts

This specification provides for the delivery of a number of social and economic deliverables through the performance of a construction contract including:

- Employment of local resources
- Employment opportunities in labour intensive works
- Business opportunities
- Enterprise support and development programmes
- Skills development
- HIV/AIDS awareness

Annexes provide information on how to activate the requirements of the specification in contracts

Expanded Public Works Programme (2004 – date)

Programme objective:

to create temporary work opportunities for the unemployed, using public sector expenditure

Observation:

- Most of the unemployed are unskilled

Actions:

- Provide relatively unskilled work opportunities
- Combine work opportunities with training or education or skills development to increase ability of people to earn an income once they leave the programme

What targets have been set for the EPWP?

Providing employment and training opportunities to at least one million people within the first five years



Programme Indicators

Person-days of Employment Created

The number of people who worked on a project x the number of days each person worked.

Job Opportunities

1 job opportunity = paid work created for an individual on an EPWP project for any period of time.

Project Wage

Minimum Daily Wage Rate = daily wage (whether task-rated or time-rated) per individual project.

Training Person-Days

The number of Training Person-days is the number of people who attended training x the number of days of training.

Demographic Characteristics of Workers

The number of workers that fall within the following categories must be recorded:

- Youth (i.e. 18 – 35 years of age)
- Women
- People with disabilities

Key performance indicators

Number of unemployed persons employed (target group)

Amount paid to target group

Length of employment

Percentage of contract price paid to targeted labour (contract participation goal)

No
employed

X

Period of
employment

X

wages

SANS 1914-5 (ISO 10845-8): Participation of targeted labour

Goal

Provide employment opportunities to unemployed persons including those who are female, are not older than 35 and who may have disabilities

Objective

Level 1

SANS 1914-5 (ISO 10845-8): Participation of targeted labour

Qualitative requirement:

The contractor shall engage targeted labour directly in the performance of the contract to the extent that the total monetary value of such engagements, exclusive of any value added tax or sales tax required by law, expressed as a percentage of the net amount, is not less than the contract participation goal provided for in the contract.

Performance
description

Level 2

Contract participation goal:

sum of the wages and allowances, for which the contractor contracts targeted labour in the performance of the contract, expressed as a percentage of the net amount

SANS 1914-5 (ISO 10845-8): Participation of targeted labour

Quantitative requirement

A contractor shall achieve the contract participation goal specified or agreed to in the contract by engaging targeted labour in the performance of the contract.

Performance
parameters

Level 3

Credits towards the CPG made by converting the total monetary value of wages and allowances paid to targeted labour to a percentage of the net amount and multiplying such values by the appropriate weightings for the different target groups, if any.

No credits granted should the contractor fail to enter into written contracts with targeted labour with acceptable conditions of contract

Evaluation

means of satisfying contract participation goals

Complying with requirements

The contractor to:

- submit details of his plan to achieve the contract participation goal on the contract participation goal implementation plan form
- provide the employer's representative with copies or proformas of all contracts entered into
- attach to his claims for payment a schedule which lists the names, identity numbers, nationality, gender, trade/occupation, period of employment, employment number etc of the individuals classed as targeted labour together with the respective wage rates and allowances payable in respect of targeted labour, both on a cumulative basis and over the period for which payment is claimed.

Note:

The employer's representative certifies the value of the credits counted towards the contract participation goal whenever a claim for payment is issued to the employer, and notifies the contractor of this amount

The contractor, upon termination of the services of the individuals classed as targeted labour, certifies the amount paid to such individuals and submits the certificate, counter-certified by the relevant individuals, to the employer's representative for record-keeping purposes

These targets (contract participation goals) may be used to:

- reserve a portion of the contract work for specified target groups through the setting of minimum contract participation goals;
- establish the basis for the awarding of preferences in proportion to the quantum of the CPG that is tendered; or
- establish performance targets for incentive bonuses relating to key performance indicators.

Where labour intensive methods are specified, the contract participation goal may be used to measure the quantum of work provided to such enterprises

Usage to get national data

Objectives of Soweto's Contractor development Programme (1988-1998)

- Opportunities for employment and training are created for the local community
- As much as possible of the project expenditure is retained for the local community
- Community-based Contractors (local entrepreneurs) are developed from within the community
- A sense of participation within the community is fostered

WHAT ARE THE COMPONENTS OF CONSTRUCTION?

•Construction management
•Materials management

} **management**

•Materials
•Labour
•Plant
•Finance

} **resources**

Labour objectives

Developing countries



Developed countries

Soweto's Contractor Development Programme

	TYPE OF SUPPORT	CONTRACTOR'S CONTRACTUAL RESPONSIBILITIES
1	Construction and Materials Manager	Provide labour. Provide small tools.
2	Construction and Materials Manager	As for 2. Transport materials from yard to site. Provide certain materials.
3	Construction and Materials Manager	As for 3 Provide site office and certain storage facilities. Provide all materials.
4	Mentor	Provide labour, materials and plant. Provide 5% guarantees. Engage specialist contractors. Finance all contractual obligations.
5	Mentor	As for 4 plus 10% guarantees.

Soweto's Contractor Development Programme 1988-1998

	TYPE OF SUPPORT	CONTRACTOR'S CONTRACTUAL RESPONSIBILITIES
1	Construction and Materials Manager	Provide labour. Provide small tools. Community contracting
2	Construction and Materials Manager	As for 2. Transport materials from yard to site. Provide certain materials.
3	Construction and Materials Manager	As for 3. Provide site office and certain storage facilities. Provide all materials.
3rd party management support		
4	Mentor	Provide labour, materials and plant. Provide 5% guarantees. Engage specialist contractors. Finance all contractual obligations.
5	Mentor	As for 4 plus 10% guarantees.

Percentage of construction cost retained by the community in Soweto's Contractor Development Programme

Description	Road Construction (%)	Secondary Water Mains (%)	House Connections (Plumbing) (%)
Labour contract	26	22	33
Transport	2	8	9
Materials			
Management	2	3	2
Construction			
Management	7	6	6
Total	37	39	50

Multiplier in employment opportunities in construction activities using Soweto's CDP work methods

- excavate and backfill trenches for water reticulation - 1,9
- excavate, lay pipes and backfill water reticulation - 1,4
- construct waterbound macadam roads - 4,7
- construct concrete block paved roads - 2,3

The programme demonstrated that it is possible to use the upgrading of a city's infrastructure to:

- Channel a significant proportion of the expenditure into the community.
- Build up the resources of the community
- Enable community members to acquire technical, commercial, administrative and managerial skills, which in turn can lead to a diversity of employment opportunities.
- **Develop local contractors who are capable of upgrading and maintaining a city's infrastructure.**

An Affirmative Small, Medium And Micro Enterprise Participation Programme

(Green paper on Public Sector Procurement Reform in South Africa - 1997)

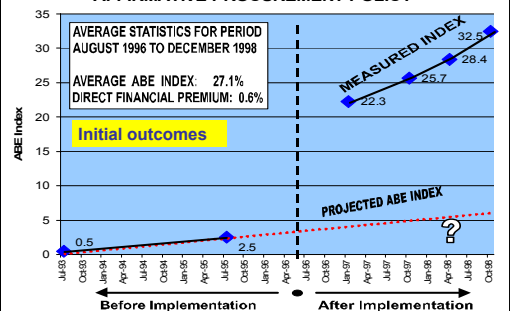
To promote and advance small, medium and micro enterprises, particularly those owned and operated by previously disadvantaged individuals, in public sector procurement without attracting undue costs and overloading procurement agencies' administrative capacities

DPW Affirmative Procurement Programme - 1997 to 1999

Use made of targeted procurement procedures

- preferences for SMME status < R2,0 m
- preferences for contract participation goals using resource specifications > R2,0 m

BASIC OUTCOME OF THE SOUTH AFRICAN DEPARTMENT OF PUBLIC WORKS' AFFIRMATIVE PROCUREMENT POLICY



ABE = small black owned, managed and controlled business (turnover < R20m)

eThekwini Water and Sanitation (2007 to date)

eThekwini Water and Sanitation maintains some 13 000km of water mains in the Durban area of which about 2 500km are aging asbestos cement pipes. These old asbestos cement pipes are at the end of their useful life, burst frequently and need to be replaced

Used - large contractors to perform the works over a three year contract

- cidb Specification for Social and Economic Deliverables

Wanted to develop SMMEs to maintain network

Outcomes

Expenditure R 400 m spent in first 14 months

Productivity: 80 km of water mains replaced each month.

Socio economic:

- ± 3800 temporary unemployed workers employed to excavate trenches and are rotated every 4 months to allow others to financially benefit
- Temporary workers paid 21% of total project expenditure.
- 16 subcontractors (or "co-contractors") are being developed to increase their share of the construction work from 10% to 20% over time (should significantly increase their turnover over time)
- A full time mentor has been engaged to assist the "co-contractors" in the establishing of business systems

Staff demands on client: one staff member

Challenges

Choose the right tool for the right job

Match the targeting strategies with the needs of the day in a specific context

Questions