4.1 The use of procurement to attain labour-based and poverty alleviation objectives

Ron Watermeyer, Director of Soderlund and Schutte, and Partner of Strategic Procurement Systems[36]

Contents

4.1.1 SYNOPSIS

This paper reviews internationally accepted public procurement (primary) objectives, and a taxonomy of different methods for using public procurement to promote socio-economic (secondary) objectives. It presents the outcome of a risk analysis, which was used to determine the negative impact that methods to achieve

[36] Ron Watermeyer (PrEng, CEng, FSAICE, FIStructE) is also Vice president, Institution of Structural Engineers; Vice President (Technical Leadership), South African Institution of Civil Engineering and Chairman of the South African Bureau of Standards' Technical Committee for Construction Standards.

secondary procurement objectives can have on primary procurement objectives. Based upon this analysis, and a further analysis of the factors that, if absent, increase the risk of failure to attain secondary objectives, the paper develops procurement best practices in relation to the attainment of a range of labour-based and poverty alleviation objectives through procurement, without compromising international trade requirements relating to discrimination and predictability.

The paper also reviews some of the standards that are currently being developed by the South African Bureau of Standards, which can readily be used to implement procurement best practices relating to labour-based and poverty alleviation objectives.

In competitive procurement markets, procurement methods to achieve labour-based and poverty alleviation objectives can only create access to markets for target groups, and encourage the use of labour-based technologies. The paper accordingly outlines the supply side interventions that are necessary to overcome constraints to achieving such objectives through procurement. Progress made in recent initiatives to address supply side constraints in South Africa is also reported on.

The paper concludes by summarising the critical success factors for using procurement to attain labour-based and poverty alleviation objectives.

4.1.2 INTRODUCTION

Poverty alleviation and job creation are often regarded as being the responsibility of a government. Growth in an economy frequently, but not always, leads to the creation of jobs. Governments are often called upon to address unemployment and underemployment in a visible manner, particularly where growth in the economy is slow or negative. Procurement provides business and employment opportunities, and, depending upon how it is structured and conducted, can be used as an instrument of government policy to facilitate social and economic development.[1]

The World Bank, in a recent publication[2], proposes a strategy for attacking poverty in three ways, *viz.*:

- promoting opportunity
- facilitating empowerment
- enhancing security.

The World Bank's strategy recognises the importance of economic growth for generating opportunity, the necessity of market reform, the imperative in societies with high inequality for greater equity in order to reduce poverty, the need for strengthening the participation of the poor, and the reduction in vulnerability to economic shocks, natural disasters, and the like.

The construction industry is an efficient industry for generating employment for a given capital flow. For this reason, it is frequently targeted for employment and poverty alleviation programmes. Work on construction projects is temporary by its very nature. It nevertheless generates significant opportunities for unskilled and semi-skilled workers. Although the jobs that are created thereby are not necessarily permanent, the total volume of work available to the poorer sectors of society is increased.

Developed and developing countries alike have used procurement as an instrument to promote a number of socio-economic objectives. Certain international trade agreements, however, limit the use of procurement to promote social policy objectives by placing prohibitions on discrimination and other restrictive trade measures or by rules on contract award procedures. At the same time, many programmes have failed to satisfactorily demonstrate that socio-economic objectives were met through procurement interventions.

4.1.3 INTERNATIONALLY ACCEPTED PUBLIC PROCUREMENT OBJECTIVES

The UNCITRAL Model Law on Procurement of Goods, Construction, and Services[3] contains desirable objectives for the procurement of goods, construction, and services. These are:

1) Maximising economy and efficiency in procurement
2) Fostering and encouraging participation in procurement proceedings by suppliers and contractors, especially where appropriate; participation by suppliers and contractors regardless of nationality, thereby promoting international trade
3) Promoting competition amongst suppliers and contractors for the supply of the goods, construction, or services to be procured
4) Providing for the fair and equitable treatment of all suppliers and contractors
5) Promoting the integrity of, and fairness and public confidence in, the procurement process
6) Achieving transparency in the procedures relating to procurement.

These objectives, which enjoy wide support, may be summarised by requiring procurements to be efficient, fair, equitable, transparent, competitive, and cost effective.[4]

4.1.4 OBJECTIVES ASSOCIATED WITH THE USE OF PROCUREMENT AS AN INSTRUMENT OF POLICY

A study undertaken for the European Community in 1995 cites five principle domestic (as distinguished from foreign policy) socio-economic or political functions that public sector procurement

may be used to achieve, in addition to obtaining the required goods, services, or works[5]. These are:

1) to stimulate economic activity
2) to protect national industry against foreign competition
3) to improve the competitiveness of certain industrial sectors
4) to remedy regional disparities
5) to achieve certain more directly social policy functions such as to foster the creation of jobs, to promote fair labour conditions, to promote the use of local labour, to prohibit discrimination against minority groups, to improve environmental quality, to encourage equality of opportunity between men and women, or to promote the increased utilisation of the disabled in employment.

Objectives associated with the reduction of poverty in the light of the aforementioned World Bank report include:

1) the provision of work opportunities to vulnerable groups
2) increasing the quantum of employment generated per unit of expenditure, through the promotion of small-scale enterprises[37], and usage of labour-based[38] technologies and methods
3) the provision of business and work opportunities to groups of people who are socially and economically marginalised, in order to address inequities in a society.

It should be noted that objectives associated with labour-based and poverty reduction programmes focus on the targeting of enterprises and labour with defined characteristics.

4.1.5 A TAXONOMY OF DIFFERENT METHODS FOR USING PUBLIC PROCUREMENT TO PROMOTE SOCIO-ECONOMIC OBJECTIVES

Several models for public sector procurement interventions, based largely upon country specific procurement regimes and requirements, have evolved.[6] Recently, however, the Public Procurement Research Group has developed a taxonomy of different methods for using public procurement to promote non-commercial objectives.[7] These methods are summarised in Table 1[8]. It should be noted that implementation methods 1 to 8 affect the procurement process, whilst method 9 does not.

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[37] Small-scale enterprises are increasingly seen as the creators of new jobs, and are regarded as being particularly effective in the economic implementation of employment intensive activities.

[38] Labour-based in relation to the production process and technologies used in the production of goods and materials, and in construction works, means methods of production and technologies that are designed and managed so as to promote the creation of employment with predetermined socio-economic benefits.

Table 2 presents the outcome of a risk analysis, based upon concepts presented in AS/NZS 4360: Risk management (1999), which was undertaken to gain an understanding of the reasons for primary procurement objectives being compromised when procurement is used to attain socio-economic objectives.[8] Table 3 establishes the probability of the identified risks tabulated in Table 2 being successfully managed in each of the methods presented in Table 1.[8] An analysis of Table 3 indicates that method 5 (award criteria), whilst not guaranteeing that socio-economic objectives will be met, is the method that is most likely not to compromise primary procurement objectives, if appropriately managed. Furthermore, Table 3 indicates that method 1 (product / description specification), method 7 (contractual conditions), and method 8 (design of procurement for the benefit of particular contractors) have the potential, under certain circumstances, to satisfy primary objectives; while method 2 (set asides), method 3 (qualification criteria), method 4 (preferencing at the short listing stage), and method 6 (offering back) are most likely to compromise such objectives.

4.1.6 TARGETED PROCUREMENT PROCEDURES

Background

The South African Ministries of Finance and Public Works established the Procurement Reform Task Team, in 1995, to reform the procurement system. A specific focus of the work of this task team was to utilise procurement to address skewed racial ownership patterns in the South African economy arising from the system of apartheid and the alleviation of poverty. The work of this team in this regard focused on the use of direct preferences (granting tender adjudication points to businesses which satisfied certain criteria), and direct participation in contracts through the engagement of targeted groups in the performance of the contract as joint venture partners, suppliers, service providers, subcontractors, or labour. This task team used a combination of method 5 (award criteria), method 7 (contractual conditions), and method 8 (design of procurement for the benefit of particular contractors)—presented in Table 1—in the design of a preferencing system to utilise the public procurement system to attain these socio-economic objectives in a fair, equitable, transparent, competitive, and cost effective manner, in accordance with constitutional imperatives.

This task team developed several innovative techniques or targeted procurement procedures (see www.targetedprocurement.com), to implement preferential procurement policies[6,9,10,11,12]. Resource specifications were developed for a commonly encountered range of target groups, to define social deliverables and the acceptance criteria relating thereto. These specifications not only defined the social deliverables that are to be realised in the process of delivery, but also set out the manner in which they can be achieved,

measured, and monitored. They accordingly enable bidders to quantify the social deliverables that they are prepared to offer during the tender stage of the procurement process, and allow those who administer contracts to audit and verify that such deliverables were in fact delivered in the performance of the contract

Table 1: Different international methods for using public procurement to promote secondary (non-commercial) objectives (after Arrowsmith *et al*, 2000)

Method of policy implementation		*Remarks*
No	***Description***	
#1	Product/service specification	Contracting authorities can often give effect to social and economic policies through appropriate specification of the product or service that is to be procured, *e.g*. to promote employment by specifying construction methods that involve intensive use of labour rather than construction plant, or require that works should be carried out in a non-polluting manner.
#2	Set asides	Contracting authorities can attain policy objectives by setting aside a certain proportion of their procurement requirements, and allow only defined enterprises or individuals to compete for the work so reserved.
#3	Qualification criteria	Contracting authorities can attain policy objectives by excluding firms that cannot meet a specified requirement, or norm, relating to the policy objective, from participation in contracts. Firms are typically excluded from participation through an inability to attain a legal requirement (*e.g.* not to discriminate on the basis of gender, race, or disability); or to attain a norm enforced in the public sector (*e.g.* a requirement to implement an affirmative action programme); or to respond to contractual conditions regarding the composition of the tendering entity. In some instances, firms are excluded as a sanction for their failure to comply with policy in the past, or to enjoy good standing in so far as their taxes are concerned.
#4	Preferences at the short listing stage	A contracting authority may decide to limit the number of qualified suppliers or service providers who may participate in contract award procedures, to reduce costs relating to procurement, and to avoid wasted expenditure by suppliers or service providers. Criteria relating to policy objectives may be taken into account in deciding which of the qualified suppliers should be invited to tender.
#5	Award criteria (tender adjudication criteria)	Contracting authorities give a weighting to policy objectives, along with the usual commercial criteria, such as price and quality, at the award stage, *i.e.* a preference in the form of tender adjudication points is provided.
#6	Offering back	Contracting authorities may achieve their policy objectives by giving targeted enterprises a second chance to make their tenders successful, *i.e.* the most competitive 'preferred' bidder can be given an opportunity to undertake part of the contract, if that bidder is prepared to match the price and quality of the best tender received.
#7	Contractual conditions	Contracting authorities may achieve their policy objectives by making such objectives a contractual condition. Conditions, typically, may concern the subject matter of the contract, or the way in which it is delivered, or may relate to the contractor's business as a whole.
#8	Design of specifications, contract conditions, and procurement processes for the benefit of particular contractors	Contracting authorities can design specifications and/or set contract terms to facilitate participation by targeted groups of suppliers. For example, work can be packaged into a number of separate, small contracts, rather than one large contract, to make it more likely that the work will be attractive to small firms and, possibly, less likely that it will be attractive to larger competitors. They may also conduct the procurement process itself in a way that assists participation by the targeted groups—for example, by simplifying procedures and setting longer deadlines to enable small firms to participate more easily.
#9	General assistance	Contracting authorities can provide support for targeted groups to compete for business, without giving these parties any favourable treatment in the actual procurement. This may be done, for example, by providing information to these groups on tender opportunities; by actively seeking them out to encourage them to register on lists from which suppliers are chosen; or by providing training on procurement rules and systems.

Table 2: The risk of primary procurement objectives being undermined by secondary considerations (Watermeyer, 2002)

RISK TO BE MANAGED	*WHAT CAN HAPPEN*	*HOW IT CAN HAPPEN (References in brackets refer to method numbers in Table 1)*
Loss of economy and inefficiency in procurement	Tenders are not awarded to the most advantageous offer. The tenders received or awarded do not represent value for money. Time taken to solicit and award tenders is excessive. Tenders are awarded to contractors who cannot deliver on time and to the required quality, either in terms of policy objectives, or owing to imposed constraints relating to socio-economic objectives. Impositions on the contractor constrain contractors to the extent that they cannot operate efficiently.	The product/service specification (#1) forces contractors to utilise inefficient and costly technologies. Contractual conditions constrain the contractor in the performance of the contract. Set asides (#2), qualification criteria (#3), and preferencing at the short-listing stage (#4) limit competition, and exclude contractors who are capable of satisfactorily executing the contracts. The award criteria (#5) contain too high a margin of preference, and unduly distort the market. The offering back method (#6) awards contracts to those who are not necessarily capable of performing the contract within the nominated contract price. The contractual conditions (#7) impose inefficient and uneconomical restraints upon contractors in the execution of the contract. Design of procurement for the benefit of particular contractors (#8) overextends the administrative capacity of the public body, owing to the high number of contracts awarded; cause economies of scale to be lost; or extend the tender period unduly. Poor choices in method of policy implementation that place excessive and unnecessary risks on bidders or overlook quality or capacity in the selection of contractors, owing to overriding socio-economic objectives.
The exclusion of certain eligible bidders from competing for tenders	Enterprises, which fall outside of those enterprises targeted in terms of a preferential procurement policy, or which fail to have achieved a certain staffing structure, are excluded from tendering, or are discouraged from tendering.	Set asides (#2), qualification criteria (#3), and preferencing at the short-listing stage (#4) can exclude or be used to exclude some contractors from participation. The product/service specification (#1), award criteria (#5), the offering back method (#6), the contractual conditions (#7), and the design of procurement for the benefit of particular contractors (#8) make the procurement unattractive to some tenderers.
Lack of competition	Bidders are not confident in the predictability of the system, and as such decline to tender. The procurement procedures are designed to restrict competition.	Unfair and inequitable treatment of contractors causes bidders to decline to tender. Only a limited number of contractors are invited to submit tenders. Contracts are allocated and not tendered. Very few contractors can satisfy the requirements established in terms of the product/service specification (#1), and the contractual conditions (#7).

Table 2 (continued)

RISK TO BE MANAGED	*WHAT CAN HAPPEN*	*HOW IT CAN HAPPEN (References in brackets refer to method numbers in Table 1)*
Unfair and inequitable treatment of contractors	Public bodies have double standards in dealing with contractors, based upon factors other than ability and capacity to perform the procurement.	Set asides (#2), qualification criteria (#3), preferencing at the short-listing stage (#4), and the offering back method unavoidably result in the unfair and inequitable treatment of contractors.
Lack of integrity, fairness, and public confidence.	Those involved in procurement do not discharge their duties and obligations timeously and with integrity / behave equitably, honestly and transparently / comply with all applicable legislation and regulations. The method used to achieve an end does not inspire public confidence.	Set asides (#2), qualification criteria (#3), preferencing at the short-listing stage (#4), the offering back method (#6), and the design of procurement for the benefit of particular contractors (#8) can be applied subjectively. The manner in which the product/service specification (#1), the award criteria (#5), and the contractual conditions (#7) are applied do not inspire public confidence.
Lack of transparency in procurement procedures.	Bidders do not understand why they failed to secure a contract / failed to prequalify, or where they are positioned with respect to a bid.	Reasons for administrative actions taken are not furnished. Eligibility criteria are not well defined / known. Tender prices and preferences, in terms of award criteria, are not made public or made known in procurement documents.
Failure to achieve socio-economic objectives through procurement	Socio-economic objectives are not achieved, despite mechanisms being in place to do so.	Lack of compliance monitoring / enforcement. Practices and procedures that are not contractually enforceable.

A goal or price mechanism was also developed to facilitate the awarding of contracts to the most advantageous offer, based upon a balance between the tendered price and the tendered deliverables, in respect of targeted groups. The resource specifications also enable sanctions to be applied to contractors who, in the performance of their contracts, fail to deliver their contracted deliverables. Specific indicators have also been developed, which represent the flow of money to targeted enterprises and targeted labour. These indices can be calculated at discrete time intervals. They enable short, medium, and long-term targets for specific policy goals to be set. Furthermore, they can be used to compare the outcomes of different programmes, sectors, regions, or implementers.

This targeted procurement approach of making social benefits just one of the criteria relevant to the contract award, which must be balanced against other criteria (such as price and quality), ensures that social benefits are obtained with the minimum possible costs to government. It can also restrict any potential financial premium to within predetermined limits. Furthermore, contractors can be given the flexibility to decide exactly how the targeted groups will be used, rather than the government deciding itself the way in which those groups should be involved.

Table 3: Probability of the risk being successfully managed in most procurements (Watermeyer, 2002)

RISK TO BE MANAGED ARISING FROM OBJECTIVES	*METHOD OF POLICY IMPLEMENTATION (Refer to Table 1)*							
	#1: Product /service specification	#2: Set asides	#3: Qualification criteria	#4: Preferences at short listing stage	#5: Award criteria	#6: Offering back	#7: Contractual conditions	#8: Design of specifications, contract conditions, and procurement processes for the benefit of particular contractors
Loss of economy, and inefficiency in procurement	2	2	3	3	3	3	2	2
The exclusion of certain eligible bidders from competing for tenders	2	1	1	1	3	3	2	3
Lack of competition	2	2	3	3	3	3	2	3
Unfair and inequitable treatment of contractors	3	1	1	1	3	1	2	3
Lack of integrity, fairness, and public confidence	3	2	2	2	3	2	2	2
Lack of transparency in procurement procedures	3	3	3	3	3	2	3	3
Failure to achieve socio-economic objectives through procurement	3	2	2	2	2	2	3	2

Note: 1= unlikely; 2= possibly; 3=very likely

SABS standards for targeted procurement procedures

The Technical Committee for Construction Standards of the South African Bureau of Standards has recently developed several standards relating to targeted procurement procedures, which may be applied in any procurement regime. The standards referred to in Table 4 have been through a public enquiry process, and are at the final stages of editing, before publication.

SABS 0396 documents the following targeted procurement procedures, and establishes practical guidelines to facilitate implementation:

- Defining target enterprises (ownership, control, independence, size, declaration affidavits, and statements by auditors)
- Defining targeted labour
- Goals associated with targeted procurement procedures
- Resource specifications (drafting principles, standardised resource specifications, structured joint ventures, activating the standardised resource specifications in procurement documents, and variations to the standardised resource specifications)
- Incentives for contractors to embrace goals (goal/price mechanism, and bonus incentives)

- Third party management support
- Electronic rotating databases (rosters)
- Equity in tendering entities
- Financial penalties.

Table 4: SABS standards for targeted procurement procedures

Draft Standard #	*Title*	*Scope*
0396	Implementing preferential procurement policies using targeted procurement procedures	This standard: a) sets out the issues and principles that should be considered when formulating preferential procurement policies and developing associated implementation mechanisms b) sets out the principles associated with the engagement of targeted enterprises and targeted labour c) establishes a range of techniques and mechanisms that may be used to provide a framework within which access to markets for targeted enterprises and / or targeted labour can be provided, and goals relating to the engagement of such enterprises and / or labour can be set, monitored, and evaluated at both project and programme level d) establishes targeting frameworks and strategies that can be used with a number of different procurement regimes e) describes techniques for the monitoring and evaluation of the outcomes of a preferential procurement policy f) provides guidance as to how targeted procurement procedures can be activated in procurement documents g) provides guidance on the design and implementation of programmes associated with the implementation of a preferential procurement policy.
1914 (series) 1914-1 1914-2 1914-3 1914-4 1914-5 1914-6	Standard specifications for targeted procurement Participation of targeted enterprises Participation of targeted partners in joint ventures Participation of targeted enterprises and targeted partners in joint ventures Participation of targeted enterprises and targeted labour (local resources) Participation of targeted labour Participation of targeted enterprises in concession contracts	These six specifications: a) describe the general requirements for engaging Targeted Enterprises and / or Targeted Labour on a contract for the provision of supplies, services, or works, as relevant b) specifies the Contract Participation Goal c) sets out the methods by which the Contract Participation Goal will be measured, quantified, and verified in the performance of the Contract d) describes the means by which: i) progress towards the attainment of the Contract Participation Goal is to be monitored ii) compliance with requirements will be verified and monitored iii) the Contract Participation Goal will be adjusted to accommodate variations to the scope of the Contract.

This code of practice also establishes targeting frameworks and strategies flowing out of standard combinations of targeted procurement procedures for a range of commonly encountered socio-economic objectives, including unbundling strategies, targeting frameworks for contractor development programmes,

and targeting frameworks for employment-intensive projects. Monitoring for contract compliance is also considered, with specific reference to the confirming of the *bona fides* of targeted enterprises at tender stage, monitoring where direct preferences are granted, and monitoring of contract participation goals using resource specifications. It also provides guidance on how to evaluate programmes with specific references to standard indices, and touches on aspects of software programmes to monitor and report on policy outcomes.

Applying targeted procurement procedures to preferencing and reservation schemes

The techniques and mechanisms associated with targeted procurement procedures can be used in most procurement regimes to attain policy objectives, using most of the models presented in Table 1. In South Africa, for example—where the constitution provides for preferencing in accordance with the Preferential Procurement Policy Framework Act (Act 5 of 2000)—preferences (method #5: award criteria) can be effected by using the goal/price mechanism, and the guidelines for defining targeted enterprises provided for in SABS 0396. Alternatively, preferences can be effected by using the goal/price mechanism, guidelines for defining targeted enterprises or labour, and resource specifications, in combination with one of the resource specifications in the SABS 1914 series (method #5: award criteria, plus method #7: contractual conditions). In Botswana, on the other hand, the Public Procurement and Assets Disposal Board Act (2000) provides for both reservation and preferencing schemes. SABS 1914-1 has been adopted in standardised bidding packages to implement reservation schemes involving the setting aside (method 2) of portions of contracts for citizen contractors. (The reservation schemes in Botswana are similar to the small business and minority business programmes currently in operation in the United States of America[5,7]).

Applying targeted procurement procedures in employment-intensive works

There are two alternative procurement approaches to implementing employment-intensive works methods[12,13], *viz*:

Method A Lay down the use of specific employment-intensive technologies and methods of construction/manufacture in the tender document (method #1: product / service specification). A variation to this approach is to specify the minimum amount of wages that are required to be paid in respect of a particular contract (method #7: contractual conditions).

Method B Afford tenderers the opportunity to choose the technology/construction method/method of materials manufacture that they wish to use in order to maximise the participation of labour in construction works, and in so doing win

bids (method #5: award criteria, and method #7: contractual conditions).

Suitable resource specifications (*e.g.* SABS 1914-5) can be used in both methods to ensure that the deliverables are attained. Either method may be used to increase the quantity of employment generated per unit of expenditure. Method 1 achieves this objective by restricting the use of certain types of plant/manufacturing methods and by specifying particular technologies. Method 2, on the other hand, by means of goal/price mechanisms and resource specification, enables tenderers to tender the amount of targeted labour that they undertake to engage in the performance to the contract. Method 2, accordingly, permits tenderers to use their knowledge, skill, and creativity in arriving at an optimum economic mix of equipment, technology, and labour in order to meet objectives and win bids.

The economic viability of Method 1 is, however, dependent upon the ability of the designer/specifier to forecast cost. Any potential price premium in Method 2 can be readily assessed during the adjudication of bids. Method 2 therefore has the distinct advantage that bid prices will usually fall within acceptable limits, and economic justification of decisions relating to employment generation will not be necessary.

Studies concerning the effectiveness of targeted procurement procedures to attain socio-economic objectives

Very few public bodies in South Africa gather basic procurement data relating to the procurement itself, let alone data relating to secondary objectives. As a consequence, although targeted procurement procedures provide the means for gathering data and evaluating programmes, few public bodies have done so. Nevertheless, there are a few pockets of quantitative data gathered during the late 1990s to indicate the effectiveness of the use of procurement to promote secondary objectives using targeted procurement procedures.

The outcome of the Department of Public Works' Affirmative Procurement Policy (APP)—a programme aimed at redressing skewed ownership patterns arising from the system of apartheid—where Affirmable Business Enterprises (ABE)—small businesses owned, managed, and controlled by black persons with turnover within prescribed limits—for the period August 1996 to December 1998 are presented in Table 5. The direct financial premium (difference in price between lowest responsive financial offer received and price of awarded tender) associated with this period was less than 0.67%. The results in Table 5 should be interpreted in the light of a declining industry and the market share of ABEs, before the introduction of the policy in 1996; *viz* 0.5% in 1993, and 2.5% in 1995.[9,14]

Gounden[9] (see www.targetedprocurement.com) has researched the impact of the National Department of Public Works' APP on the

participation and growth of ABEs in the South African construction sector during the period August 1996 to July 1998, *i.e.* the period before supply side interventions were launched. His findings are as follows:

1) There was, over the study period, an order of magnitude increase in ABE participation at a nominal cost premium. ABE participation was greatest in contracts having a value in excess of R 2 million, where ABE participation is predominantly secured as subcontractors, through resource specifications. For contracts in the less than R 2 million category, where direct preferences for ABEs were provided, noticeable increases in participation were observed, but these were not as significant as in the above R 2 million category.
2) The participation of ABEs across the different contracting sub-sectors indicated significantly higher participation in the building sub-sector, with limited increases in the civil, electrical, and mechanical sub-sectors.
3) The APP acted as a catalyst for formalising the ABE subcontracting sector. Many ABE subcontractors registered as formal business during the period under review.
4) There was a significant increase in the number of joint ventures formed between ABEs and non-ABEs, with the application of the APP. ABE partners were observed to have benefited from these joint ventures via skills transfer and augmentation of their own capacity. ABEs that participated in these joint ventures indicated that these relationships were more beneficial to them than had they acted as subcontractors on these contracts.

Table 5: National Department of Public Works: Statistics pertaining to the implementation of an Affirmative Procurement Policy where Affirmable Business Enterprises were targeted (Govender and Watermeyer, 2000)

Subsector	*Period*				
	Aug 96 to Jun 97	*Jul 97 to Dec 97*	*Jan 98 to Jun 98*	*Jul 98 to Dec 98*	*Weighted average for period August 96 to Dec 98*
ABE Index (market share) %					
Building	24.9	27.5	31.3	33.3	30.3
Civil	0.0	8.8	20.8	2.4	19.4
Mechanical	12.9	9.0	17.0	6.6	14.3
Electrical	5.5	12.3	28.4	0.0	10.8
AVERAGE	22.3	25.7	28.4	32.4	28.0
Total value of contracts awarded (Rand# million)					
Building	R207.5	R348.2	R807.7	R403.4	R1766.8
Civil	R3.8	R2.5	R124.3	R3.8	R134.4
Mechanical	R17.8	R27.2	R79.3	R6.5	R130.8
Electrical	R17.5	R11.0	R6.0	R2.7	R37.2
TOTAL	R246.6	R388.9	R1017.3	R416.4	R2069.2

6 Rand (approximately) equalled 1 US$ in 1998

Gounden's[9] thesis, using data gathered by the National Public Works Department between August 1996 and July 1998, supported the hypothesis that *"the public sector in South Africa can contribute to increased participation of Affirmable Business Enterprises in the construction industry via the implementation of the Affirmative Procurement Policy".* It also supported the sub hypotheses, namely:

- the National Department of Public Works can promote increased participation by Affirmable Business Enterprises (small black owned enterprises) in the construction economy, via its Affirmative Procurement Policy
- the adoption of the Affirmative Procurement Policy has resulted in the state bearing a limited financial premium, when compared to the initial projected project outcomes and overall benefits
- increased procurement opportunities to Affirmable Business Enterprises via government's Affirmative Procurement Policy is a necessary, but not sufficient, condition for the full enablement of ABEs in the construction sector
- Affirmable Business Enterprise participation varies according to subsector entry level thresholds
- the Affirmative Procurement Policy promotes joint venture relationships between established contractors and Affirmable Business Enterprises

- the application of the Affirmative Procurement Policy has resulted in better-regulated relationships between prime contractors and sub-contractors.

The Southern Metropolitan Local Council (SMLC) of the Greater Johannesburg Metropolitan Council implemented during the 1996/97 financial year a number of projects, involving the laying of sewer and water pipelines, roads, and storm water drainage, using the TP5 resource specification (engagement of targeted labour) and goal/price mechanisms. Targeted labour was defined as South African citizens residing within the geographical area over which the SMLC has jurisdiction, and who earned less than US$ 1.50 per hour. The average targeted labour goals of the successful tenderers in the first nine contracts awarded amounted to 13%; the associated direct financial premium being a mere 0.5 %[11]. In comparison, the Bloekombos project, a pilot project that was undertaken on work of a similar nature under the auspices of the National Co-ordinating Committee for Labour Intensive Construction in the Western Cape, prior to the April 1994 election in South Africa, in terms of the Framework Agreement for Public Works Projects using Labour-Intensive Construction Systems, found that approximately 12% of the construction cost was spent on labour drawn from the targeted group. The accepted cost premium for projects of this nature was between 10% and 15%[12]. The Bloekombos project incorporated prescriptive clauses in the contract that restricted the contractor's use of construction plant, and demanded that particular earthworks activities be undertaken using hand methods of excavation.

The Midrand Metropolitan Local Council in South Africa adopted a local economic policy in June 1998, in order to realise socio-economic deliverables through the creation and maintenance of public assets, and the provision of municipal services. The Council used the system of targeted procurement to implement the policy, *viz* the goal/price mechanism and a range of resource specifications. Low wage earners residing in the area, and local small black owned businesses, were targeted. Targeted labour indices of 23.1%, and targeted enterprise indices of 33.0%, were attained in the first year of operation; the direct financial premium being less than 1.0% in both instances.[15] (These indices represent the monetary flow to target groups, and are expressed as a percentage of the total procurement).

The data gathered in the Southern Metropolitan Local Council and Midrand Metropolitan Local Council case studies, when interpreted in accordance with the baseline data contained in a National Housing Report[16], suggests that targeted procurement procedures are able to deliver significant increases in the quantum of employment generated in municipal works, at moderate cost premiums.

Targeted procurement procedures have also been successfully used to direct capital flows into underdeveloped and

disadvantaged rural communities, in conventional construction projects. An excellent example of this is the Malmesbury prison complex in South Africa, *i.e.* the project that gave birth to Targeted Procurement in South Africa in 1996. Malmesbury is a small rural town approximately 70 km from Cape Town. Those involved in the development of the Targeted Procurement procedure were unaware of any target group businesses in Malmesbury, and considered that a 10% goal might be achieved if contractors who fell into the target group were drawn from the Cape Town area. Thirty per cent of the value of the two contracts, *i.e.* US$ 13 million, was channelled into this community through targeted enterprises. The Malmesbury Prison Contract proved to be more efficient at channelling money into communities than some focused poverty alleviation programmes in South Africa, involving the construction of community buildings.[17]

4.1.7 SUPPLY SIDE CONSTRAINTS

Overview

Preferential procurement policies create the demand for targeted labour, and the demand for services and products of targeted enterprises. Targeted procurement procedures accordingly provide access to markets for both targeted enterprises and targeted labour. Supply side interventions are, however, required to ensure that the demand is balanced by the supply. This is important where targeted enterprises are targeted, particularly if such enterprises fall into the small business sector, and growth in new entrant small businesses is encouraged.[1]

Small scale enterprises

Interventions may be necessary to ensure meaningful and effective small-scale enterprise participation in the market. In construction contracts, supply side interventions should, *inter alia*, address:

- skills development
- access to information
- legislative and regulatory impediments
- availability of appropriate and labour-based technologies
- access to finance for hiring or purchasing plant and small equipment.

Constraints facing entrepreneurs may be categorised as being:

- **internal constraints,** such as 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
- **external constraints**, such as market distortions, prevailing socio-economic structures, *e.g.* laws, regulations, procurement

procedures, perceptions, and access to finance and opportunities, all of which are beyond the entrepreneur's control.

Broadly speaking, internal constraints can be addressed through the provision of training and mentorship, and exposure to business practices such as through joint venture relationships. External constraints require financial assistance and a restructured procurement environment that is an enabling and sustainable one.

The growth of an enterprise is related, to a large extent, to the experience gained in the operation of the business. Accordingly, one of the primary means of accelerating the rate of growth is to increase the rate of gain of experience. Interventions that form integral parts of the procurement arrangements, and that are initiated, facilitated, and paid for by the contracting authorities, provide mechanisms for targeted enterprises to accelerate their development by learning from the experiences of other contractors in a structured environment. Typical interventions that a contracting authority can make include[18]:

- Third party management support to emerging / fledgling / embryonic enterprises, or aspirant entrepreneurs
- Mentorship to developing enterprises.

Mentorship should not be confused with the provision of third party management support. Mentorship is required to facilitate growth of a fledgling contractor into a fully-fledged contractor, and of a contractor executing contracts having a particular value and/or risk profile to a contractor executing contracts having a higher value and/or risk profile. In short, mentorship is of great value, since it can capacitate enterprises to overcome the impediments to their development that they face, and can assist enterprises to cross the divide between owner-managed companies to companies with ownership structures.

Other types of intervention include those facilitated by institutions. Such interventions are independent of the procurement arrangements, and include business and risk management services, and a range of supportive institutional arrangements. These arrangements need to be put in place by contracting authorities, donor funded non-governmental organisations, and related non-profit organisations. Wide ranging interventions may be required, depending upon the regime within which targeted enterprises operate, and may include tender and business advice centres, training in commercial, technical, administrative, and managerial areas, financial facilitation, 'soft' loans, bridging finance facilities, capacity building, *etc.*

Promoting choices in technology

Engineering may be defined as a creative synthesis that requires problem solving, in which there are no unique answers, but only compromise solutions. Specifications, codes of practice, and

standards establish a framework of acceptable and recognised engineering practice within which engineers can arrive at solutions.[19] The use of procurement to attain labour-based and employment objectives presupposes that appropriate labour-based methods and technologies are readily available to those engaged in construction works as designers and constructors. The availability, or lack thereof, of appropriate specifications and suitable technology choices can have a marked influence on the degree to which socio-economic objectives can be attained on works contracts. Appropriate specifications and labour based technologies are also required to optimise the engagement of smaller contractors and the increase in employment opportunities per unit of expenditure. The absence of design information on labour-based technologies frequently leads to the situation in which only those technologies for which there is adequate design information are considered in the design of a project. Alternatively, labour-based technologies are approached circumspectly and conservatively.

Procurement, when used to promote social objectives associated with employment creation, cannot be divorced from choices in technology. Choices in technologies are frequently required to increase demand, particularly where increases in employment per unit of expenditure and the use of local resources are targeted.[20] Targeted procurement procedures and the choice of technology are as such the engines for growth in employment.

Quality may be regarded as conformance to stated requirements (specification) rather than fitness for purpose. It is achieved by executing a contract to stated requirements. Small-scale entrepreneurs have particular problems in achieving quality, depending upon how quality is measured and defined. It may be argued that these standards have been drafted to suit the well-established industry, and are framed around plant-based methods of manufacture, and medium to large-scale enterprises that have a reasonable degree of technical competency and testing resources. In addition, the test methods and procedures for quality assurance are generally written for a scale of operation where sufficient quantities for statistical purposes are manufactured, and the cost of testing by external authorities (or that associated with the establishment of in-house laboratories) can be written off against the volume of the article that is manufactured. Failure by a small-scale manufacturer to comply with one of the requirements of these specifications, albeit a relatively minor lack of compliance, means that compliance with a national or international standard cannot be claimed. Thus, in effect, many of the current specifications present a barrier to entry to indigenous small-scale entrepreneurs, and exclude their participation in particular markets. Simple and inexpensive point of manufacture tests are required to address this.[12]

Performance specifications and building codes and regulations (see Figure 1[21]) can permit tenderers to make technological

choices that impact on both cost and socio-economic deliverables, such as the use of local resources, the increase in employment opportunities per unit of expenditure, or the provision of business opportunities to targeted enterprises[19]. However, in order to facilitate the greater use of indigenous materials in buildings, particularly in the housing sector, it will be necessary to quantify performance levels for different user requirements, using the approach followed by the Joint Structural Division of the South African Institution of Civil Engineering, and the Institution of Structural Engineers' code of practice for the Assessment and Performance of Housing Units in South Africa.

The challenge facing engineers is, in the first instance, to understand the potential which construction projects have for delivering socio-economic deliverables, and thereafter to use their skill, knowledge and creativity to realise these deliverables.[22] What is urgently needed is the:

- dissemination of technical information to enable informed design decisions to be made
- development of suitable on-site/point of manufacture acceptance tests
- the development of fitness for purpose criteria for innovative labour-based technologies, and the methods and instruments by which such criteria can be met for given performance levels
- research and development to enable innovative labour-based technologies to become accepted as conventional technologies.

The Department of Public Works in South Africa has made some progress in this regard. It has developed a draft best practice guide, which presents current practices in a wide range of labour-based construction methods, manufacturing methods, and technologies that have been successfully utilised in South Africa in recent years. The guide, once reviewed by a cross-section of industry experts, will provide sufficient technical information on such methods and technologies to enable a) those responsible for the design of projects to make confident and informed choices on their use in projects, b) constructors to embrace such techniques, and c) clients to accept such technologies with confidence. The document currently addresses labour-based construction methods for earthworks, precast concrete products, brick and block making, labour-based open channel flow technology, rubble masonry concrete dam construction technology, rubble masonry concrete arch bridge construction technology, foamed bitumen gravel, cast *in-situ* block pavements, emulsion treated gravel, waterbound macadam, and slurrybound and composite macadam construction.

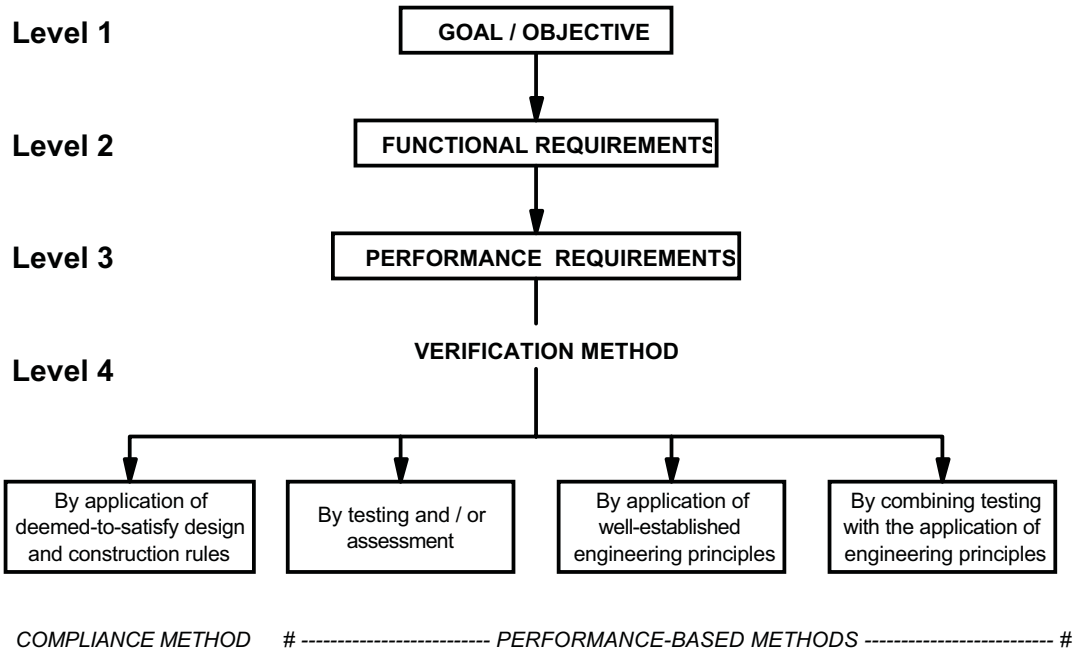

Figure 1: A four level regulatory system

The challenge to governments is to establish the institutional arrangements to develop technical standards, and a technical assessment organisation to assess innovative labour-based technologies[39]. Learned societies and professional associations in turn have a role to play in[19]:

- Establishing appropriate best practice guides, codes of practice, specifications and test methods, and technical manuals to enable engineers to arrive at engineering solutions from an African perspective, where this is appropriate
- Establishing a procurement regime that facilitates the participation of indigenous and/or local contractors, service

[39] It should be noted that most national standards bodies provide secretarial services, and do not as such develop standards. The industry writes and develops standards under the auspices of the standards body. Accordingly, national standards for innovative technology are sometimes quite impossible to achieve, until such time as the product technology has been wildly utilised and is known. There is accordingly a need for bodies, such as an Agrément Board, to assess such technologies. The Agrément certification concept has its origin in France. The French building industry, in the 1960s, identified the need for an organisation that would protect the public against unsuitable building methods. As a result, they invested in certifying products by means of technical examinations that guarantee the use of satisfactory and durable building techniques. Agrément certification enables innovative construction products to be assessed. The South African Agrément Board has recently developed and accepted fitness-for-purpose criteria for bituminous road products, and associated evaluation and test procedures. In the near future, innovative bituminous binders, asphalt surfacings, surface seals, cracks and joint sealants, and cold-mix materials will be able to obtain Agrément certification, and be used with confidence in South Africa on public and private contracts.

providers, and materials suppliers in the provision of engineering and construction works

- Establishing performance standards and user performance levels for human settlements that facilitate the use of indigenous technologies and materials
- Establishing and disseminating best practices in the area of labour-based technologies, and methods which maximise the use of local resources in a cost-efficient manner
- Establishing point of manufacture tests for the acceptance of construction materials
- Establishing ways in which information can be shared and disseminated, technologies can be transferred, and the implementation of best practices and technologies can be facilitated.

4.1.8 CRITICAL SUCCESS FACTORS

The achievement of socio-economic objectives is not a simple process, even when a well-developed instrument guides the implementation thereof. In order to successfully use procurement as an instrument of social policy, it is necessary to consider firstly those external factors over which the implementing agents (*i.e.* the decision makers or senior managers in a client body) have no control at both a project and programme level.

External factors include[1]:

- Government's commitment to the attainment of stated objectives from the highest levels
- Endorsement and support from policy makers, senior administrators, and those accountable for procurement activities
- Motivation amongst target groups to take advantage of the opportunities presented
- Human resources who are conversant with and competent in implementing policies.

It is also necessary to consider those factors that are within the control of implementing agents, *viz*:

- Comprehensive and unambiguous supporting documentation and work procedures, to enable specific objectives to be achieved
- Effective monitoring and reporting systems
- A means by which the *bona fides* of any target group can readily be established.

If the procurement system is to be effective and efficiently executed, it is necessary to:

- systematically measure the achievements towards socio-economic objectives

- evaluate the cost-effectiveness of the measures that are adopted on an ongoing basis
- ensure that clear and unambiguous deliverables are in fact being achieved
- strictly monitor outcomes and compliance with stated requirements
- enforce requirements
- provide for remedies for non-compliance that are sufficiently punitive to encourage compliance.

This requires dedication and commitment on behalf of officials and their consultants to meeting project and programme socio-economic deliverables, and the gathering and analysing of data in a systematic manner, as described in SABS 0396: *Code of practice for the Implementation of Preferential Policies in accordance with Targeted Procurement Procedures*.

Figure 2 outlines a model for implementing preferential procurement policies.[23] This model presents the logical sequence of activities that need to be followed to implement preferential procurement policies in a systematic manner. This model integrates the evaluation of programmes with the identification of supply-side constraints, in order to optimise policy outcomes.

4.1.9 CONCLUSIONS

It is possible to attain labour-based and poverty alleviation objectives, using procurement as a policy instrument, without compromising internationally accepted objectives associated with the procurement itself. This requires a careful selection of implementation methodology and procurement techniques. Targeted procurement procedures, if systematically applied, can be used to implement such policies efficiently and with integrity. The use of such techniques also permits the outcomes of such policies to be quantified and evaluated.

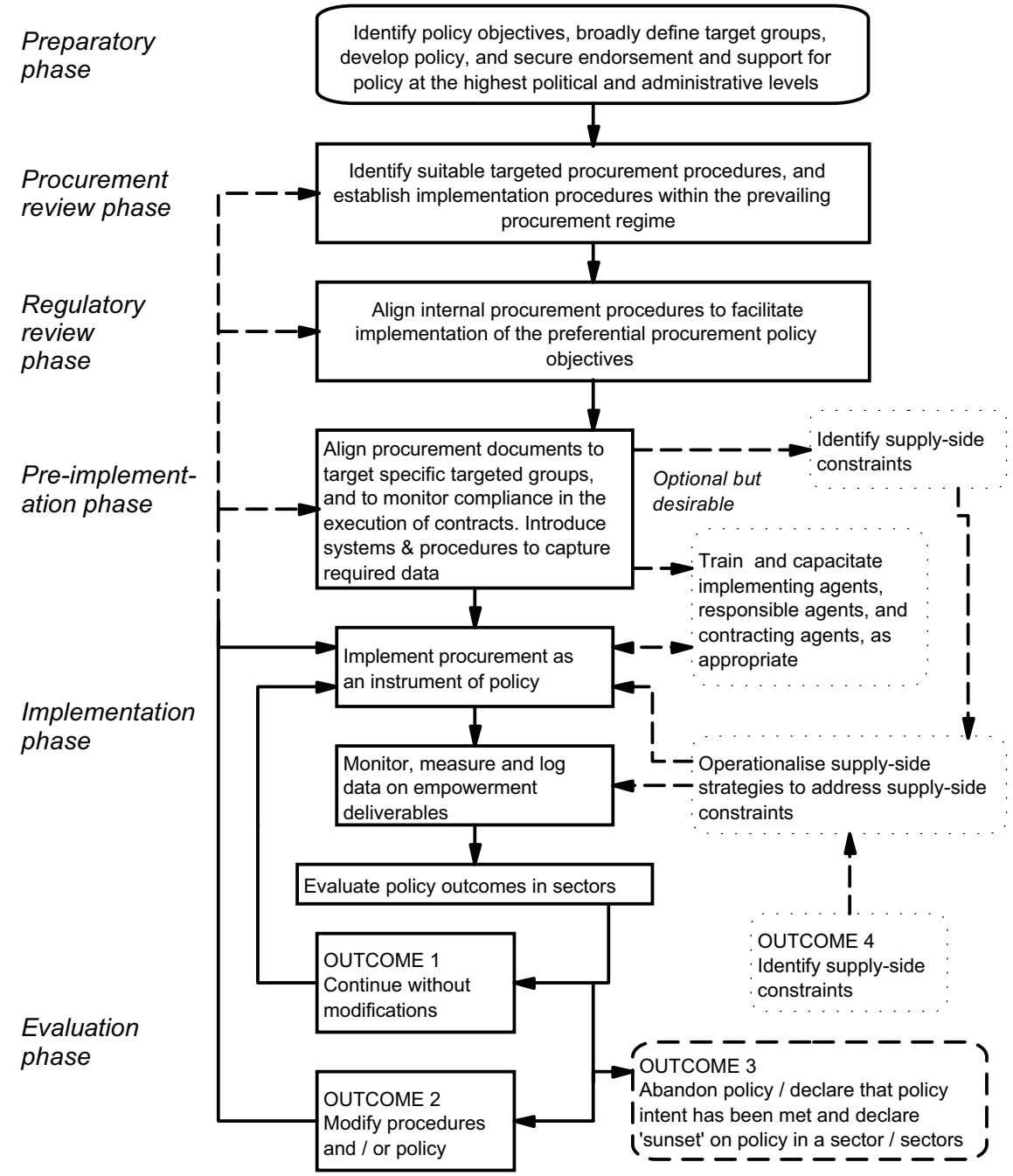

Figure 2: Model for implementing a preferential procurement policy (Watermeyer *et al*, 2000)

Appropriate supply-side measures are essential to the success of any programme. Appropriate technologies and standards for labour-based methods are generally lacking. Learned societies and professional associations have a role to play in the development and dissemination of appropriate technologies and standards, including performance based building codes and regulations, and the interpretation thereof.

A disciplined approach to the formulation of policy, the selection of implementation mechanisms, enforcing contract compliance, and the gathering of data to evaluate programmes are necessary.

There is a case for amending the UNCITRAL Model Law on Procurement of Goods, Construction, and Services to make provision for the use of procurement for attaining secondary objectives. Such an amendment would, as is stated in the Rio Declaration, *promote an open, non-discriminatory and equitable multilateral trading system that will enable all countries—in particular, the developing countries—to improve their economic structures, and improve the standard of living of their populations through sustained economic development.* Appropriate supply-side interventions, particularly in the form of appropriate performance based standards and the formalisation of innovative labour-based technologies, will contribute to some of the actions identified at this summit, namely the establishment and strengthening of indigenous building materials industry, based upon inputs of locally available natural resources.

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