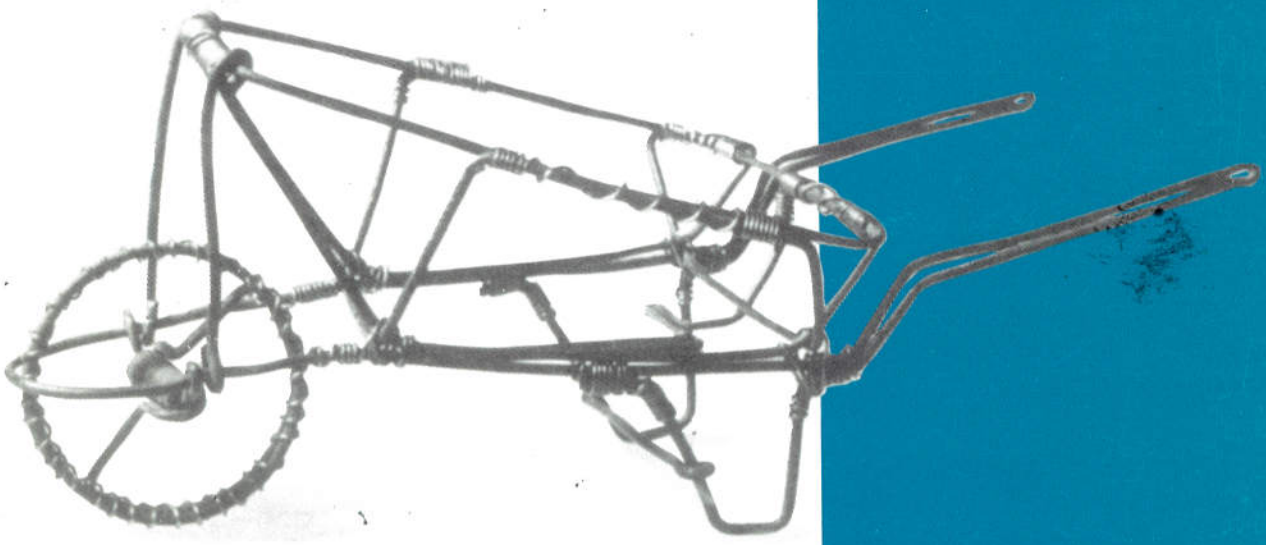
# Guidelines for emerging contractor development

Construction and development

Chris Milne



Number 5

# Guidelines for emerging contractor development

**Construction and development series**

**Number 5**

Development Bank of Southern Africa

Policy Working Paper 5

Guideline Paper

ISSN 0122–0127

ISBN 0–947057–99–4

March 1994

Chris Milne

with contributions by Herbert Atkins

Centre for Policy Analysis

Development Bank of Southern Africa



Price: R10

# Construction and development series

## Titles in this series include

| | | |
|---|---|---|
| 1 | Socio–economic enhancement of development projects | R10 |
| 2 | Interim guidelines for appropriate contract procedures and documentation for labour–based construction projects | R75 |
| 3 | Guidelines for the identification of appropriate construction methods in developing areas | R10 |
| 4 | Development and the application of building regulations | R10 |
| **5** | **Guidelines for emerging contractor development** | **R10** |
| 6 | Labour–based opportunities in construction | R10 |
| 7 | Emerging contractors: framework for estimating | R10 |
| 8 | Concrete block paved roads: the development potential | R10 |

These documents can be ordered from:

Development Bank of Southern Africa
P O Box 1234
Halfway House
1685
Tel (011) 313–3911
Fax (011) 313–3086

# Series preface

Policies and strategies for promoting development in South Africa are arguably as important a product of the Development Bank of Southern Africa as its loan finance and technical assistance programmes. This series of publications on 'Construction and development' illustrates this point.

Development projects in South Africa have traditionally been undertaken to meet only the physical needs of the recipient community. South Africa's changing social and economic environment demands that such projects are executed in a way that also addresses communities' other needs. To achieve this, projects should be structured so that opportunities for employment and the development of skills and entrepreneurial abilities are maximised.

Construction and maintenance of resultant facilities are an essential part of any growing economy and in South Africa historically an important employer and an industry typifying the overcapitalisation which has bedevilled the economy. These considerations, together with the fact that a large part of DBSA's lending goes to construction projects, suggest that it would be helpful to make practical proposals to assist the industry to adapt and contribute to development in the new circumstances.

The publications in this series present an approach to development that focuses on:

— identification of the broad economic and social needs of communities

— optimal use of resources available to them

— ways in which communities can exploit the opportunities presented by development projects

— approaches to making best use of labour — an abundant but underutilised resource

— appropriate design and methods of building and construction

— the use of, and misconceptions about, building regulations

— entrepreneurial development.

The publications are thus designed to help alleviate the constraints which have inhibited poorer communities from developing the skills at both individual and community level that can lead to entrepreneurship and genuine empowerment. This is perhaps the most important message of the series. It is above all through active participation in the process of development that individuals and communities can improve their quality of life. And it is to this end that the series is dedicated.

The Construction and development series of publications is produced by DBSA staff and consultants contracted to the Technical dimensions of development policy programme, whose advisory panel has recommended the widespread distribution of these publications to further the human development approach pursued by DBSA.

**GJ Richter**
General Manager

**AM Muller**
Programme Manager

## Mission of the Development Bank of Southern Africa

The Development Bank of Southern Africa is a regional development institution whose primary aim is to facilitate socio-economic development and empower people economically in the region.

## Acknowledgements

The author gratefully acknowledges valuable and constructive comments by Ben Veldman, Rudy Absil, Nigel Lowe, Ingrid Verwey, Glenn Havemann, Ken Finlayson, Mike Marler, Don MacLeod, and Colin Griffin of Entrepreneurial Development Southern Africa. Typing and graphics were patiently undertaken by Sandra Calitz, Susan Vosper and June Ntuli.

## Modifications and additions

Users and readers are requested to share their comments, recommendations and own experiences. Readers who wish to contribute to further editions should contact the author.

## Copyright

# Contents

# 1. Introduction

## Support for emerging contractors

In the current economic climate, employment is a general concern as is also the provision of housing and services. Since the cost of creating jobs in construction is far lower than in other formal industrial sectors, considerable attention has been given to the promotion of labour–based approaches in these industries. Although the potential of the construction industry for emerging entrepreneurial development has also been recognised, results have been disappointing. The broad DBSA objective of mobilising and optimising the use of local resources has led to the identifying of emerging entrepreneurs as a subgroup in need of support.

Some developmental institutions have small business support programmes for emerging entrepreneurs. Their efforts have primarily been directed at emerging builders in the housing sector. Emerging civil contractors, electrical contractors, plumbers, material/component manufacturers and suppliers are usually not considered by such organisations.

Emerging contractors have been supported with mixed success; shortcomings include inability to meet deadlines, unfinished work and abandonment of building or site, deviation from plans and specifications, poor workmanship and budget overruns.

These are symptoms, the cause being the constraints faced by emerging contractors as they often have to operate in a system devised for established contracting. The following are examples of these constraints:

— Standard planning, tender procedures and contract documentation have not been revised sufficiently to encourage and attract emerging contractors, with the result that entrepreneurial and employment opportunities have been lost. Contracts are often too complicated and have conditions which cannot be met by the contractors, for example performance guarantees, insurances and penalty clauses.

— Construction methods have been selected regardless of local skills and resources (labour, materials, technology and entrepreneurship). Furthermore, implementing agencies, consultants and others are not fully committed to promoting local emerging contractors.

On the positive side, there is recognition of the need to support emerging contractors. Entrepreneurial Development Southern Africa (EDSA) established a Small Contractor Action Forum to support contractors. Most institutions concerned with emerging contractors are voluntary members of the forum: commercial banks, building societies, government departments, developmental agencies, builders' merchants, builders' associations, professional and training institutions. The aims of the action forum are to coordinate efforts, avoid duplication, identify needs and opportunities in the market and stimulate contractor development. Subcommittees have been established to deal with training, financial and contractual aspects. Legal matters are referred to the Sunnyside Group.

These guidelines attempt to translate into practical terms what has to be done to overcome the constraints on local entrepreneurial development in the construction industry. The success of such actions should be measured by the extent to which they:

— enable and empower people to assume the responsibility for improving the quality of their lives by benefiting from opportunities in their communities

— facilitate upgrading of the social and physical environment

— increase employment

— reduce poverty

— stimulate regional economic growth

— reduce imbalances in access to opportunities.

## Readership

These guidelines are for those involved in development including decision–makers, funding and implementing agencies, the construction industry and the public at large. As the guidelines highlight local entrepreneurial development in the construction industry as a means of achieving wider societal aims, they are assumed to be of interest beyond the confines of the industry.

## Objective of entrepreneurial support

Emerging entrepreneurs face two types of constraints:

— Internal constraints are factors which inhibit business efficiency and over which the entrepreneur has direct control, for example deficiencies in numeracy, literacy, managerial expertise and technical skills. These business limitations can be overcome through training and advice.

— External constraints are beyond an entrepreneur's control. They are due to market distortions and the prevailing socio–economic structure, for example laws, regulations, procurement procedures, perceptions, and access to training, finance and opportunities. Overcoming these constraints requires financial assistance, infrastructure and appropriate developmental strategies.

The specific objective of entrepreneurial support is to assist emerging contractors to get the necessary technical, administrative, managerial and marketing expertise to operate in the industry, that is help them overcome internal and external constraints.

Entrepreneurial support which only improves the *supply* of contractors through training, financial and management assistance is not enough. Efforts should also be directed at increasing the *demand* for their services through labour–based approaches and by restructuring projects.

The approach requires communication and a common understanding between the parties, namely funding agencies, authorities responsible for project implementation, formal and informal contractor representatives, support organisations and labour unions.

The following chapters detail an approach to entrepreneurial development.

---

**Key factors:**

* **Identify constraints.**
* **Provide support.**

# 2. Regional programmes

## Establish a regional or subregional programme for emerging contractor development which involves all the parties

In the course of providing infrastructure and housing, government departments and parastatals can create opportunities for emerging contractors. A regional programme should be established to ensure common goals and coordination. It is important to have a steady flow of opportunities and for this the following market factors should be considered:

— analysis of the work capacity of existing and emerging contractors for the next 3 to 5 years (*supply of contractors*)

— analysis of capital investment programmes, identifying for the next 3 to 5 years labour-based projects and tasks using emerging contractors (*opportunities for contractors*); and reconciliation of these opportunities with the supply of contractors

— analysis of the capacity of implementing agencies to carry out support programmes including coordination of developmental actions, counselling and the additional supervision required by small contractors.

A regional approach could also be used to deal with structural issues which hamper emerging contractors. Regional forums and task teams, similar to the action forum mentioned previously, should be set up for this. Examples of the structural issues in question are:

— tender board regulations

— conditions of tender

— conditions of contract

— emerging contractors as subcontractors to government departments and parastatals (occasioned by privatisation of maintenance)

— continuity of work

— support services not available in a region.

---

**Key factors:**

* **Do multi-year planning and programming.**
* **Coordinate and integrate efforts.**

# 3. Framework for contractor development

## Adopt a framework that will cover all aspects of contractor development

Figure 1 presents a framework relating contractors at different levels of development and the elements by which development occurs. The elements of contractor development are:

— contractor classification, defining operating levels according to the managerial, technical and financial competencies expected of contractors

— project or task classification defining the complexity of work that a contractor at a particular operating level can perform. It is vital to match the task with the contractor's competency

— procurement and contractual arrangements defining the types of documentation, tender procedures and contract types that contractors at the various levels are comfortable with and that satisfy project and client needs

— support services defining areas of support needed by contractors for overcoming their internal constraints; external constraints would be attended to at a higher level

— control measures, apportioning risk and providing cover similar to those in conventional approaches.

The guidelines in the following pages expand on these elements and contractor development as it is affected by:

— management choices that accord with and optimise entrepreneurial development

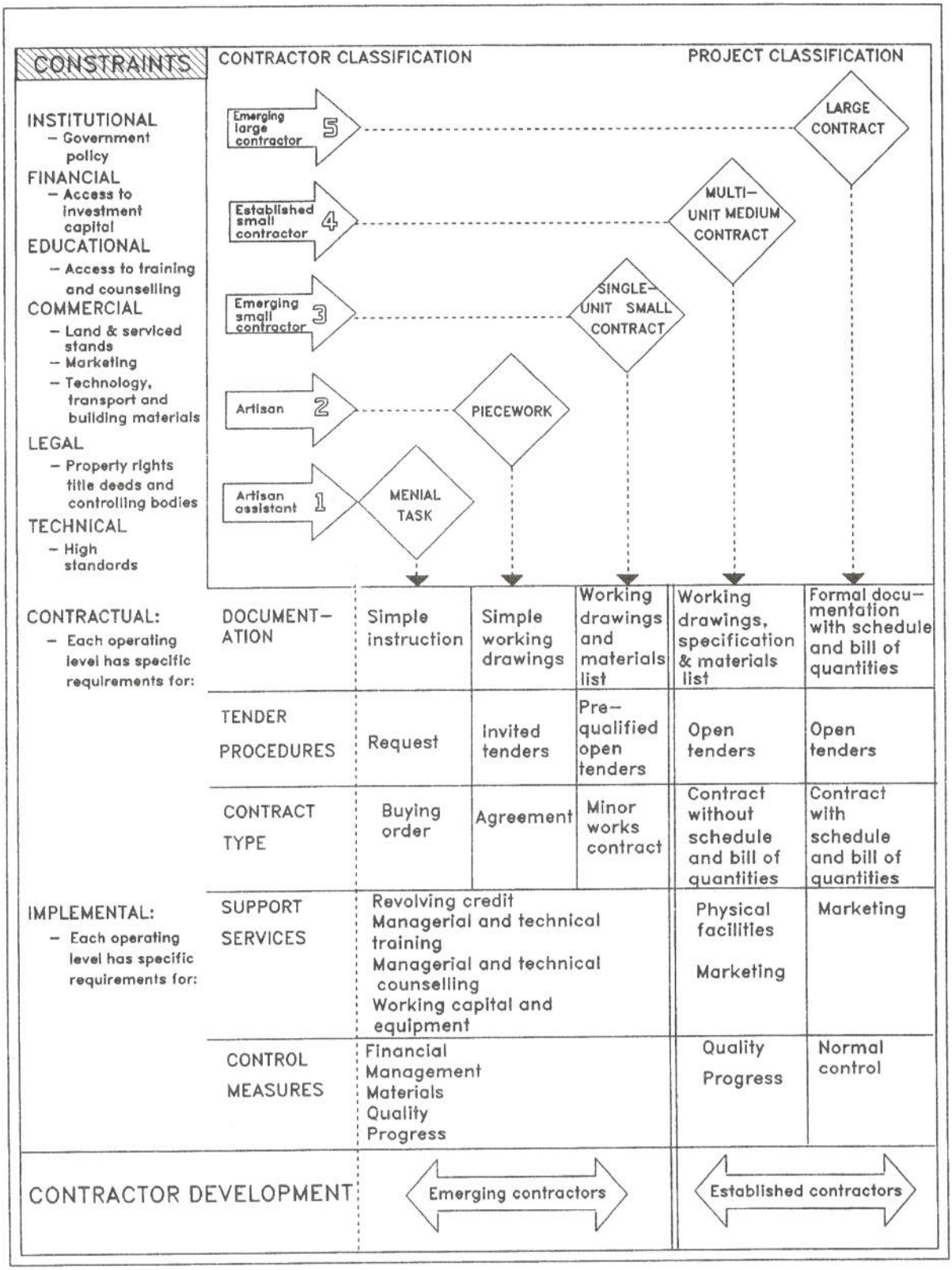
— institutional roles for ensuring coordination and project success

— project options that match the project with developmental objectives.

**Key factors:**

* **Adopt a framework that will include all the elements of contractor development.**

**Figure 1: Framework for contractor development**




Source: Adapted from a presentation by Chris Milne to the Small Contractor Action Forum, February 1990.

# 4. Contractor classification

## Classify contractors in one or other of the five levels

There are several career paths and entry points to the construction industry. The level of entry depends on individual educational and financial circumstances. A university graduate with considerable technical knowledge and some managerial skill will enter at a higher level than a new entrant with limited technical knowledge and no managerial skill. Advancement will depend on making up for deficiencies. Technical knowledge and managerial and business skills can be acquired given ability and dedication. A less tangible requirement is a willingness to be an entrepreneur: risk–taking is a vocation which some people have and others do not.

Figure 2 illustrates the technical, managerial and financial competencies at each level and interrelates the following aspects of the industry:

— level of contracting

— an indication of contract amount for each level

— knowledge and skills required at each level

— time estimated for advancing from one level to the next

— labour level of contract: labour only or labour and material.

For ease of reference, operating levels have been identified on a continuous growth path. Each level relates contractor capability to complexity of work. The time frame indicates the number of years a contractor is likely to need to become established as a large contractor. Initially, growth is slow but accelerates as the learning curve becomes steeper and the contracts larger. The learning curve will change for individual contractors in keeping with their individual growth paths. Advancement in the industry (from R5 000 to R1 000 000 and over) depends on contractors acquiring technical knowledge together with managerial and business skills, while strengthening their capital base and financial resources. Entrepreneurial development ultimately depends on business acumen and risk–taking.

The operating levels are:

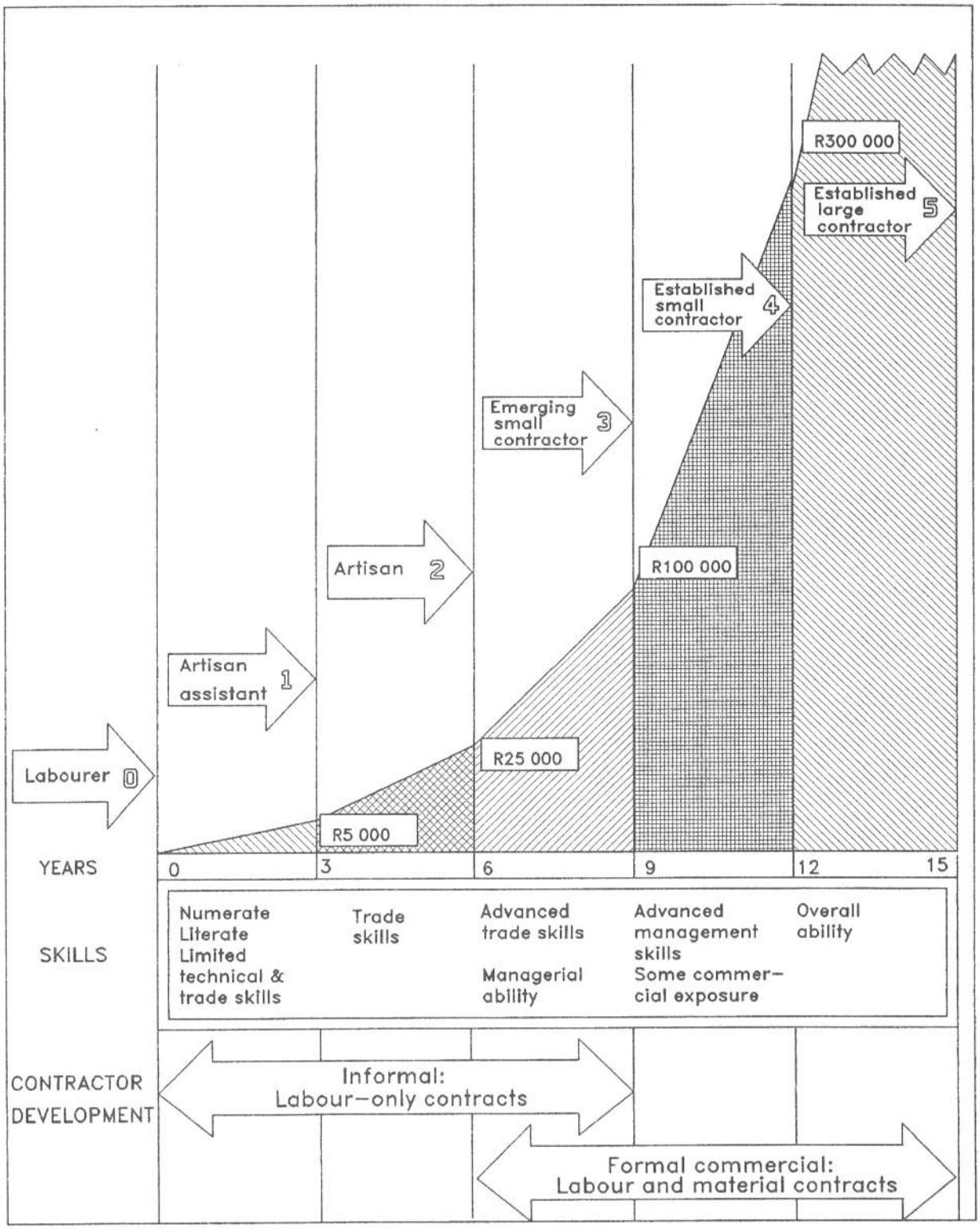
### Level 1: New entrant (specified trade skills)

This is an employee capable of menial tasks as an artisan assistant and with skills in one or more of the following trades: bricklaying, carpentry, plastering, tiling, painting and plumbing. He can be engaged on labour–only contracts and will need regular payment. Supervision is important and is usually the employer's responsibility. Tendering procedures would not apply. Value of contract (material and labour) could be up to R5 000.

### Level 2: Artisan (trade skills)

This contractor best performs labour–only piecework, would have to be supplied with materials and requires close supervision. The norm is to invite tenders for which a simple working drawing suffices. The contract should be simply worded. Value of contract (materials and labour) could be up to R25 000.

**Figure 2: Contractor classification**



### Level 3: Emerging small contractor or subcontractor

This contractor or subcontractor can build simple structures (classrooms, low-cost housing) employing artisans and labourers. Documentation should be simple; tendering could be open but requiring prequalification. A minor works-type contract, for labour or labour and materials, would suffice. The contractor would require a list of materials. Value of contract could be up to R100 000.

### Level 4: Established small contractor

The established small contractor can do multi-unit, medium-sized contracts for own account and is responsible for both labour and materials; employs subcontractors and employees, should be involved in marketing and would be able to do a small school, a simple clinic etc. Tendering could be open to a shortened bill of quantities, or to specification and working drawings. Value of contract could be up to R300 000.

### Level 5: Established medium-sized or emerging large contractor

This contractor does domestic and commercial work, would tender on the open market and is likely to operate in the formal sector. Examples of projects would be a school, a clinic or a housing scheme. Tendering procedures would be open to a bill of quantities. Value of contract could be up to R1 000 000.

**Key factors:**

* **Carefully consider the technical, managerial and financial capabilities of contractors.**

# 5. Project or task classification

## Reduce the complexity of projects as much as possible and ensure that the project is matched to the capabilities of contractors

Matching contractor capabilities to project needs requires the appraisal firstly of local skills and the entrepreneurial climate, and secondly of the project in order to break it down into discrete tasks attractive to local entrepreneurs. This can be done by:

— Horizontal stacking, or breaking down a project into *trades*, and then awarding separate contracts for earthworks, flooring, brickwork, steelwork, electrical, plumbing, fencing, etc. This usually requires in-depth programming, control and suitable project management, which could be provided by the implementing agency, a large contractor or a project manager.

— Vertical stacking, or dividing projects into *units*, each going to a local contractor. This requires programming, control and management, but less than the previous approach.

Combinations of the two methods are also possible.

The participation of the local contractor may well depend on how the tender is broken down. For instance, a 100 km road could be beyond an emerging contractor's capability. If the contract is subdivided vertically into separate contracts of 20 km each, then emerging contractors can bid for one or more modules. Similarly, other work can be subdivided horizontally so that a contractor may, for instance, bid for the culverts on the 100 km run of road.

The design should also take into account contractors' expertise; for example emerging contractors experience problems with:

— complicated brickwork details

— erection of steel portal frames

— short construction programmes

— electrical, plumbing and other specialised work

— operations requiring plant or machinery.

Thus simple projects are better suited to emerging contractors, but innovative design and procedures applied to larger projects can also render them, or parts of them, suitable. These approaches apply equally to infrastructure and building projects.

---

**Key factors:**

* **View labour-based construction favourably.**
* **Match contract complexity to contractor capability.**
* **Plan projects to use emerging contractors for all or part of the contract.**

# 6. Procurement

## Finalise procurement procedures after the complexity of a project, the level of contracting and the management structure are known

The following are some aspects to consider when drawing up procurement procedures:

— Documentation should be simplified, using only working drawings and specifications for smaller projects. The schedules or bills of quantities should match the size and complexity of the project.

— Specifications determine the skills required for a project. Standard specifications may need redesigning for labour–based construction; engineering and architectural detailing should be modified according to the need.

— Insurance and risk apportionment strategies can be adapted to meet different contractual arrangements; small contractors, for example, often do not qualify for all–risks insurance which, if required, could be borne by the implementing agency by means of principal control insurance.

— Contracts are often too complicated for emerging contractors to understand and have requirements impossible for them to meet, such as performance guarantees, insurances and penalty clauses. Guarantee funds could be established by the implementing agency and risks should be apportioned by providing adequate control and by clarifying roles.

— Tenders should be called for at a level appropriate to the contractor. For example, small contractors can be invited to a tender meeting at which the documentation is explained; only then will participants be able to tender competitively.

Training agencies offer building and civil contractors pricing and management courses. The courses should be promoted, and documented in ways that reconcile theory with practice.

The procurement procedure will reflect the level of project management; the more sophisticated: the management the more complex the procedures are likely to be. On large projects employing established and emerging contractors at the same time, procedures must be developed for use at each level of competence. An established contractor could, for example, tender for the overall management of the project, materials handling and supervision of the contractors. The emerging contractors would only tender for work within their level.

---

**Key factors:**

* **Investigate the complexity of a project and the level of local contracting before completing the procurement procedures.**
* **Ensure that the procurement procedures do not hinder local contractor development.**

# 7. Support services

## Provide support services for each level of contracting through available institutions or by providing on-site project support

Locally available institutional support for emerging contractors is preferred; otherwise support will have to be sought elsewhere, usually at a cost to the project. Once it is known what support is required, the institution providing it has to be identified and approached. As emerging contractors develop, their needs change. Institutions offer various types of support and at different levels in response to market needs.

The principal support needs of emerging contractors are for finance, training and marketing.

### Finance

*Financial assistance*. Emerging contractors need bridging finance; the arrangements for financial assistance and pay-back period should be linked to the project.

*Guarantee arrangements*. The contractors have need of support on performance guarantees, contractors' all-risks insurance, collateral, cessions and other matters with legal consequences.

*Access to reasonably priced materials*. Materials are often the largest part of project cost. The implementing agency should assist the contractors to get reasonably priced materials by direct supply, discounts through existing outlets or providing adequate finance for bulk purchasing. The contractors will require support in order to obtain credit from suppliers.

*Levies*. The contractors should be made aware of the levies they will have to pay, for example those to the Industrial Council.

### Training

*Capacity building*. Support programmes should assist the contractors in forming consortia, acquiring plant and equipment, upgrading staff, etc.

*Technical and managerial counselling and training*. This service should be available to the contractors and to the community at large as part of an endeavour to develop the local construction industry.

*Improving credibility*. The contractors may need support in documenting a track record, preparing CVs, motivating staff and overcoming preconceptions about their abilities.

*Direct assistance and counselling*. The contractors often need direct assistance and counselling on such matters as tendering, site norms (professional practice), setting out, benchmarks, understanding programme demands and interfacing with clients, professionals and banks.

*Networking*. It is important for the contractors to be made aware of the functions of professional and trade associations, to attend seminars and have feed-back from trade organisations.

**Marketing**

*Marketing assistance*. The contractors should have equal opportunities for access to markets. Contracts should be broken down into manageable parcels of work. Local monopolies that may operate to the detriment of the contractors should be discouraged.

*Removing prejudice*. Every effort should be made to remove any prejudices of clients and consultants that might tend to blame the contractors as a group rather than the individual responsible for the action subject to censure.

*Accreditation*. There is an obvious need to improve the image of the emerging contractors. This can best be achieved by group association and by the membership adopting a strict code of conduct.

*Continuity of work*. This is one of the main concerns of the contractors as without continuity of work their operation will come to a halt. Funding agencies (DBSA and others) have an important role in this regard.

*Location and concentration*. As the contractors have limited mobility, place and volume of work available are important considerations. A works programme should be designed to achieve continuity of work.

**Key factors:**

* **Identify the technical and managerial constraints of emerging contractors and the support services available to overcome the constraints.**
* **The support services should extend to the community as far possible.**
* **Support can be had from a variety of sources.**

# 8. Control

## For each operating level institute control measures that safeguard the contractor as much as the client

Control measures must be in place at an early stage. Control must not be confused with support. An emerging contractor with little past experience is vulnerable to unforeseen circumstances when taking on a job. For the lower levels, represented by emerging contractors (levels 1, 2 and 3), the controls should cover all key aspects of a contractor's activity including finance, management, materials, quality and progress. Emerging contractors, for example, may have severe financial limitations by not being fully aware of their commitments or taking on more work than they can do. Controls should be frequent so that problems can be identified before they become critical.

Control requirements vary with the level of contracting and should reflect the contractual arrangement. As a contractor develops so too should the controls to satisfy the new contractual arrangements; their frequency is likely to diminish as the contractor gains in competence. The control requirements for established contactor are fewer and concentrate mainly on quality and progress. These contractors should keep an updated record of their technical and managerial skills, and financial resources.

**Key factors:**

* **Control is not advice or supervision.**
* **Control is instituted until a contractor has a proven track record.**

# 9. Management structure

## Consider the managerial alternatives with the aim of maximising job creation through entrepreneurial development

Labour–based construction methods promote longer–term economic activity as the capital input is less and much–needed employment is created.

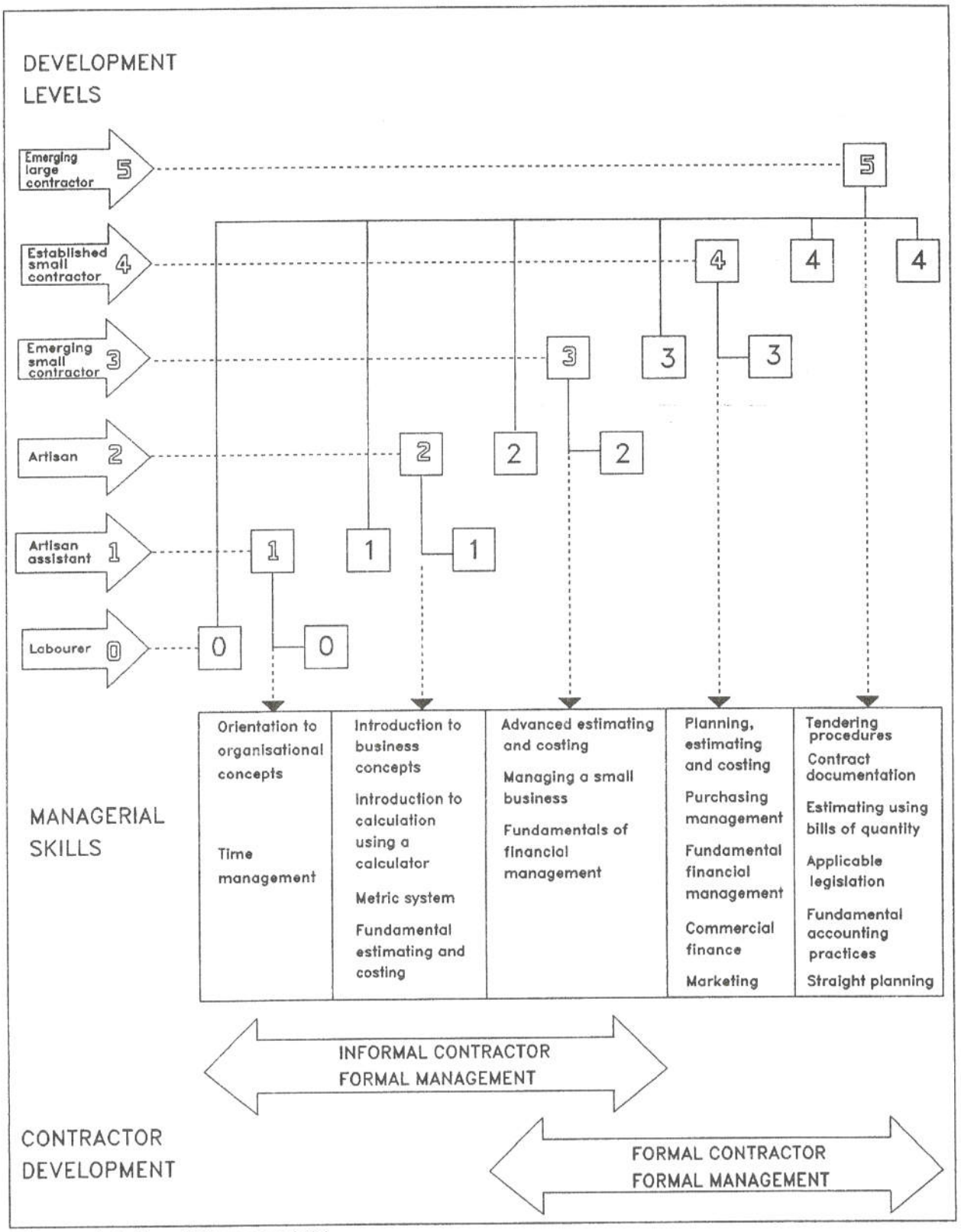
If the workforce is employed by management, we have a *labour–based project*; if it is self–employed as emerging contractors or subcontractors, we have an *emerging contractor project*. Thus the primary difference between an emerging–contractor approach and labour–based methods lies in the management arrangement. The development of entrepreneurs within the community builds up local capacity and encourages self–reliance.

Figure 3 relates levels of contracting to managerial skills. Managerial skills are needed to resolve situations arising from technical considerations and also from contract size; at level 1, for example, the contractor is technically capable of building a latrine, hence many latrines. However, should a contract be let for a thousand latrines to be built in a short time, the managerial skills needed would go far beyond the competence of a level 1 contractor. A contract of this size requires managerial skills listed under level 5. It is easy to visualise contractual situations where contract amount rather than technical complexity determines the managerial requirements. Managerial advancement from one level to the next has to be demonstrated on the job; the contractor has to prove to himself, and to his prospective clients, that he can do the job on time and within budget. Managerial arrangement should take into account the available entrepreneurial support programmes. The transfer of skills from manager to contractor must be planned and incorporated in the project.

**Key factors:**

* **The management arrangement will affect procurement procedures.**
* **Select the managerial structure that best supports the objectives of entrepreneurial development and skills transfer.**
* **Give preference to locally available managerial capacity.**
* **Ensure that the contract is structured to satisfy the development objectives identified for the project.**

**Figure 3: Management structure**




Source: adapted from EDSA course material

# 10. Institutional roles and institution building

## Assess the client institution for level of community participation; promote participation by clearly defining the roles of the various parties and recording them, preferably in a legal document

The degree of community involvement in the project cycle of identification, planning, implementation, operation and maintenance depends on the mandate of existing institutions. Institutional roles may have to be modified when promoting the development of emerging contractors. Traditionally, the implementing agency (local authority, etc) assumed the role of client and was controller of the funds even though the funding source was another institution or another level of government. The implementing agency, in its dual capacity of client and controller of funds, had discretionary powers over the project cycle. In these circumstances the design principles, the technology and the procedures did not promote emerging contractor development and in fact often hindered it. The community, as the ultimate beneficiary of a project, had a reactive or passive role. The developmental impact of a project was limited to the physical facility being provided, generally by others; the community was little more than a spectator.

Local entrepreneurial development is closely linked to the community. The resources readily available are those in the community, that is local materials, local manpower, local machinery and local money. The challenge is to unlock these resources and so enhance the developmental impact of projects — in other words, use these local resources as a way of creating opportunities of employment for local people as suppliers of goods and services, contractors and labour. For this to happen, the community as client has to be actively engaged throughout the project cycle. The implementing agency has to facilitate the attainment of the objectives of the redefined client community. The consultants' proposals must take account of these objectives. Sometimes it is better to have two consultants, one representing the implementing agency and another representing the client or community, the latter having to make the community aware of its rights and obligations as well as demonstrate approaches with the greatest developmental impact. Figure 4 illustrates the restructuring process necessary to transform the traditional active — passive mode into a mutually complementing supportive–active one. The shift from 'little or no communication with the community' to 'empowerment' shown in the stepped blocks represents stages in the institution–building process. Each step represents a change of emphasis in decision–making and a consequent devolution of responsibilities to the local community. With responsibility comes an awareness on the part of the people involved of the resources available to satisfy local needs in ways that achieve the greatest impact at the local level.

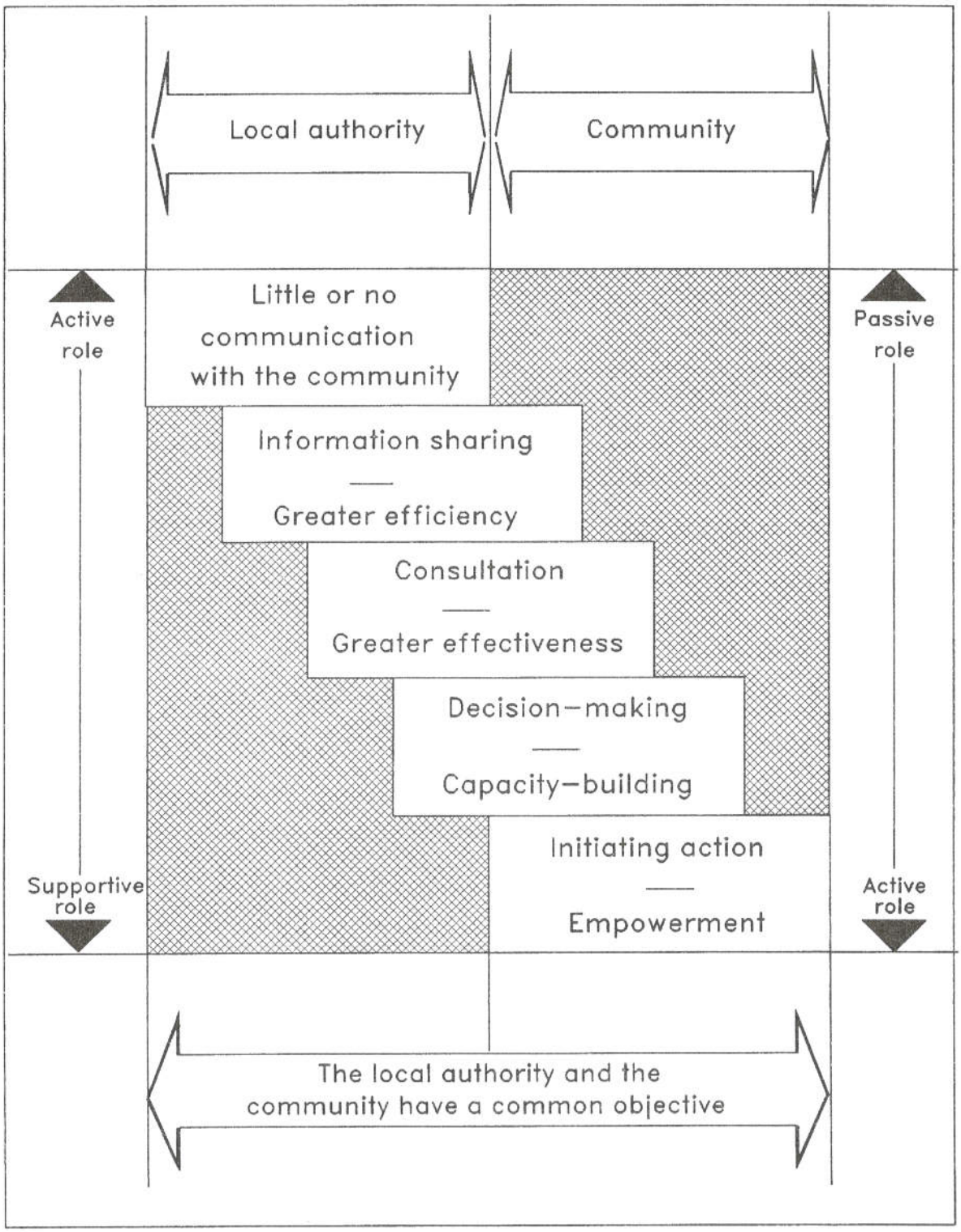
Management training and counselling services are crucial to the success of projects with emerging contractors, as is the flow of information from and to the client community. A community liaison officer can usefully be appointed as part of the contract, especially during implementation. The officer's duties are to keep the community informed about progress, attend to labour disputes, select labour and influence wage and task rates, etc. The setting up of a new system requires consultation and trust. *Each party's role, responsibility and share of risk has to be clearly spelled out and understood.* If necessary, the agreement should be translated into the local language.

---

**Key factors:**

* **Involve all relevant parties during all the phases of the project.**
* **Clarify and agree on the roles and responsibilities of the parties.**
* **Remember that if any party does not perform the project could fail.**
* **Institution–building is a project component stated or subsumed.**

**Figure 4: Institution–building and degree of community participation**



# 11. Project options

## Consider different project options and select the one that will most readily satisfy the project objectives

Different projects have different developmental objectives. Examples follow of project options, each requiring a different management structure:

— *small contracts*, to be executed by small contractors with the usual support and control

— *management contracts*, in which large projects are subdivided for small local contractors, who are given the full range of support services and are subject to controls to ensure success

— *training contracts*, in which an established contractor or project manager trains local people in technical and managerial skills equipping them to execute future phases and to operate and maintain current phases

— *demonstration projects*, for testing and demonstrating new approaches and developing appropriate procedures and documentation

— *conventional contracts*, in which an established contractor undertakes as many areas of the work as possible using local subcontractors and labourers

— *combination projects*, in which options are combined as required.

**Key factors:**

* **Structure projects to meet development objectives.**
* **Consider innovative ways of implementing projects with multiple objectives.**

# References

Croswell JA, 1989. Labour–intensive construction, practical details for success. JA Croswell and Associates.

De Gasparis PR and Jardine–Orr AF, 1991. Discussion paper: DBSA approach to people participation. Unpublished paper, DBSA.

International Bank for Reconstruction and Development and Scott Wilson Kirkpatrick & Partners, 1978. *Guide to competitive bidding on construction projects in labour–abundant economies.* Washington: World Bank.

Kritzinger–van Niekerk L, Eckert JB and Vink N, 1992. Towards a democratic economy in South Africa — an approach to economic restructuringUnpublished report, DBSA.

McCutcheon RT, Van Zyl CWL, Croswell J, Meyer D and Watermeyer R, 1993. *Interim guidelines for labour–based construction projects.* Policy Working Paper 15. Midrand: DBSA.

Milne JC, Jackson BM et al, 1993. *Socio–economic enhancement of development projects.* Policy Working Paper 14. Midrand: DBSA.

Soweto City Engineer's Department, BS Bergman & Partners Inc, GM Hattingh & Partners, DLM Project Management, Project Management Techniques, 1992. Contractor development in labour–based construction.

Technical Coordinator, Van Wyk and Louw Inc, 1991. Guidelines to consultants to enhance the use of local communities' labour and skills during the implementation of RKDP projects.

Cover: Wire sculpture by Billy Makhubela

Published by Development Bank of Southern Africa
P O Box 1234 Halfway House 1685
Telephone (011) 313-3911
Telefax (011) 313-3086