

## **Difficulties and Constraints**

While there are a wide range of problems which are likely when promoting a new local contracting industry, Bank experience has shown that the most prominent problems will be:

- Creation of the market: an "enterprise culture" cannot be driven, it must be stimulated by market forces; therefore a new market must be created;
- Control: it is difficult to promote initiative and also to maintain control. This is true of both the maintenance of design and road performance standards, and in the control of the quality and cost of the work of contractors;
- Effects of organizational change: redundancies or over-staffing in road agencies, and members of their staff forced to undertake tasks for which they are not qualified; and the reality of local business practices;
- Time-scale: where there is little existing local capacity, the time required to see the results of policies which encourage more use of local firms will be very long, and may exceed reasonable expectations.

### ***Creation of the Market:***

It is clear from the various studies that have been done on the current state of local contracting and consultancy capacity that it is generally very weak and fragmented. This is an indication that the market for construction design and contracting services does not provide a suitable commercial environment within which local firms could flourish. Given the fairly obvious cost advantages that these firms could offer in comparison with government agencies, and certainly with foreign firms, this is surprising. Some possible reasons for this, and the effects on the proposed use of local firms, will now be discussed.

***Centrally planned economies.*** Many countries have, or have had, strongly centrally planned economies. This may have the effect that there is no market. If this form of economic management has persisted over a period of many years, there may be no "enterprise culture" either, or perhaps a small, rather suppressed and suspicious one. In this case, much would have to be done to create an environment which encourages people to become entrepreneurs.

***Aid donor policies.*** Aid tied to the use of goods and services from the donor country is common, and limits the market for local firms to that of suppliers of local services, or as cost-effective subcontractors.

***Clients' requirements.*** Technically complex projects, and those of large scale, are rarely suitable for design and construction by local firms. Usually, the technology is too advanced, or the scope too wide, or the risk too great for their knowledge and skills.

***Form of contract and contract documents.*** The form of contract is often derived from those used in international contracts, or in developed countries. Usually, they require a level of commercial sophistication, risk-taking, and contract administration that most local firms cannot meet. They are usually heavily weighted in favor of the client, usually government, who wishes to conform to principles of accountability rather than promote the well-being of local firms.

***Uncertain payments.*** It is common for African governments to manage their cash crises by delaying payments to their consultants and suppliers, sometimes for substantial periods. This can be disastrous for fragile businesses. Contractors especially find it very difficult to obtain credit, and suffer severe operating problems if they do not have a regular and adequate cash-flow.

***Fluctuating workload.*** In most African countries the funds allocated for road maintenance will fluctuate from year-to-year, sometimes quite widely. To some extent this is inevitable in developing economies which are fueled principally by sales of raw commodities and are thus sensitive to fluctuations in world commodity prices. In addition, many governments continue to regard capital expenditure as a means of controlling the economy, introducing quite severe fluctuations in the construction market.

### ***Control***

In any project, there are three elements to be controlled: quality, cost and time. In order to control these elements, project managers and their staff require information, knowledge, skills, authority, technical and management systems and resources. One result of this is that local professionals feel disadvantaged in comparison to their foreign counterparts, and so lack the confidence to build their own businesses and compete on equal terms. A further factor that undermines confidence is that information, knowledge, etc. acquired from developed countries is much more highly prized than that which relates to local conditions. Thus a strong initiative is required to "localize and make appropriate" the education, training and professional development of promising young people.

Good systems for drafting contract documents, contract administration, and the control of payments are crucial to effective control of maintenance work. An analysis of contract form is beyond the scope of this paper, but it is important to state the principle that a contractual system that has simple requirements, simply stated, and capable of simple measurement, is a better foundation for control than a legally complex document employing sophisticated concepts and measurement systems. Much work remains to be done on this problem.

It should be noted in this context that implicit in the title of this paper (given by the seminar organizers) is the perpetuation of the traditional divide between "consultants", who design and supervise, and "contractors", who construct that which the consultant has designed; and both consultant and contractor have contracts directly with the client but not each other. Many construction clients throughout the world are moving away from this traditional form of three-

cornered adversarial relationship, and this is an indication that it should not be needless, perpetuated in the SSAIP initiative. Control will be more easily exercised if road maintenance contracts are structured in such a way that encourages client, designer and constructor to work together with a common purpose. A further benefit would be that closer cooperation would ease the problems of inspection and supervision which are inherent to the traditional contract system. If contractors' work is to be inspected, measured and controlled in detail, the employing authority (or its professional advisers) will be constrained to spend heavily on recruiting and training considerable numbers of experienced construction personnel as inspectors.

### *Effects of organizational change*

It is likely that the organizational changes will have three elements: natural expansion of existing firms under the new stimulus; inducement mechanisms to encourage the transfer of government staff to existing firms; and inducements for complete units of government staff to create new firms. In an attempt to structure the discussion, it is helpful to apply a fairly simple classification to the staff of these government organizations:

- Potential design consultants: these will be the more technically able designers, those with some flair and confidence in their own ability; and also those who have good relationships with such people, who would be prepared to move to design consultancy under their leadership;
- Potential contractors: who will be the more enterprising of those members of staff who have been involved in the supervision of construction, who have good contacts in both client and contractor organizations; and, again, those who will be prepared to move with them;
- Younger people, who have no especial leaning, but who will be reasonably adaptable anyway;
- People in neither of these three groups, but who would be useful members of staff of a much reduced road agency whose purpose was constrained to overall road transport planning, and the employment and control of design and supervision consultants;

and, of course

- Others, whose skills and attitudes would not make them easy to fit into any of these new positions.

Assuming that the organizational changes were managed effectively, with sensible inducements, there should be only real problems with the last class of employees. Thus the magnitude of the problems under this heading will be directly related to the numbers of people in this last class.

A careful study must be done of the way in which local firms really operate, within their own commercial and social structure. Generally, individuals will have strong social and cultural identities, beliefs, motivations and obligations within social systems that have developed over centuries. These may be principally those of familyhood, tribe, and a complexity of other influences. Business practices are likely to be more strongly related to the parameters of these systems than to Western microeconomic theory. Perhaps, if all the determinants were clearly understood, the theory would still apply. It is necessary, therefore, to conduct serious researches to identify and understand these parameters. The experience of the authors and others indicates that attempts to implant developed country business models into African life frequently give unexpected results.

Viewed from this perspective, development strategies such as "the introduction of modern management practices" must be viewed with some concern. What is needed is a careful study of existing management practices - which may work reasonably well if the economic context could be improved - and the to work with local people to improve them. Otherwise, the local proprietors and managers will simply take from the development program those parts of it which they can use, and leave the rest alone.

### ***Time-scale***

Most government organizations are over-staffed and that their equipment is under-used. Thus a policy of transferring work from the government organizations to local, private, firms would have the effect of moving the work from a sector of the economy that has surplus capacity to one which has inadequate capacity. It is likely that a well-managed program for the development of local firms will have the effect of increasing the capacity of this sector - supported, of course by more general development programs that stimulate the expansion in numbers of educated and skilled people. However, this natural growth will have a very long time-scale, so more immediate action will have to be taken to transfer significant numbers of government staff to the newly emerging private companies, or to form sections of the organization into new, private firms. Thus, to achieve results in a reasonable time, it will be necessary for the program to incorporate a large component for accelerating organizational change through intermediary institutions of various kinds.