

# PREPARING THE CONSULTANT'S TERMS OF REFERENCE



Paper, given by Mr. Michael Lewis during the seminar:  
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## BIOGRAPHICAL NOTE

Michael Robin Lewis was born in 1927 and is an Australian citizen. He is a Civil Engineer.

Mr. Lewis is currently director of Ove Arup Partnership, Chairman of Civil Engineering Board, Partner in Ove Arup and Partners Australia, Botswana, Zambia and Zimbabwe.

Mr. Lewis has been responsible for numerous large scale projects in many countries, including the Sydney Opera House in Australia and numerous projects in Iran. He has established practices for Ove Arup & Partners in Australia, Africa. and Iran and is a civil engineer of wide experience. He is a main board Director of the firm which employs a staff of 2,000 in the United Kingdom and 1,000 in 44 offices elsewhere.

*This paper was prepared by Michael Lewis who was unfortunately prevented from being present and the paper was read on his behalf by John Tattersfield (U.K.).*

The guidelines which the Committee have prepared are directed primarily (especially those relating to the Postcontract Award Agreement) to a situation involving partners of equal technical and financial (bargaining) position. However, we recognize and include the following comments relative to other possible situations.

The practice of providing knowledge for reward to create projects probably goes back to the days of the first major structures - the pyramids, the Parthenon, the Roman aqueducts. One could argue that consultancy is at least the second oldest profession. These early architects and engineers practiced alongside physicians and lawyers, amongst others. To a large extent, up to this century, both the employment and remuneration of architects and engineers paralleled that of doctors and lawyers. They were approached to provide services on the basis of their reputation and were paid according to established norms.

The twentieth century brought some changes. Architectural competitions became commonplace, and in the 1960's, clients began to ask for proposals from several consulting engineers as to how a job would be performed. The advantages to a client of comparing the experience of a number of firms and their different approaches to the same task became more evident for overseas work where the client could have a choice of different technologies. It has become normal to choose from an international spread of firms by requiring a technical competition.

It is part of the old tradition of consultancy that Terms of Reference are drawn up jointly by the Client and Consulting Engineer after the Consulting Engineer has been appointed. In this situation, which is still common in the private sector, Terms of Reference which are well composed establish an understanding between the parties, virtually solve the problems and lead to successful projects. The process draws on the full range of skills and experience of the Consulting Engineer and gives the Client full opportunity to explore possible solutions at the conceptual stage of his project.

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Regrettably this situation is becoming increasingly rare and the main thrust of this part of the Seminar is to look at the drafting of Terms of Reference which not only embody the aims and objectives of the Client, they should also satisfy the perceived objectives of the Funding Authority, and to make matters worse they should also form the basis for selecting, directing and controlling the work of the chosen Consultant.

# 3

Project types fall into four categories:

- 3.1 Pre-investment services - surveys; feasibility studies; appraisals.
- 3.2 Preparatory services - detailed design; preparation of bidding documents; calling and evaluating tenders.
- 3.3 Implementation services - construction supervision or project management.
- 3.4 Institutional/Operational assistance - management, training up institutions.

Virtually all consulting assignments are people-intensive although some projects such as aerial surveying, mapping, drilling and computer services may have a large element of equipment-intensive work.

# 4

Terms of Reference should contain

- 4.1 The aims and objectives of the assignment.
- 4.2 Background information including a full list of available references and documents which relate to the project.
- 4.3 Scope of the work - particular areas of work to be covered, extent and accuracy of the consultant's work should be defined. 4.4 Requirements for progress reports and time schedules including time required for appraisal by Client and Funding Agency at different stages of the project.
- 4.5 Training requirements where appropriate. 4.6 Data, local services, personnel and facilities to be provided by Client.

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Terms of Reference for pre-investment services often give an estimate of man-months for different categories of Consultant's staff. Whilst it is desirable that some form of estimate is given it is equally important that the Terms of Reference should not lead a Consultant into following blindly the methodology proposed by the authors of the Terms of Reference. It is better in these situations to provide budget estimates of the cost of consultancy services thus giving the Consultant an opportunity to determine the best means of carrying out the consultancy within the Terms of Reference and budget estimate of cost.

# 6

Cost as a determining factor in selecting Consultants.

It is now widely accepted that for preparatory services and implementation services the Terms of Reference will call upon the short-listed Consultants to include financial proposals as well as a technical response. Price is increasingly becoming a deciding factor in the choice of Consultants.

The "two envelope" method of selection should, in theory, ensure that Consultants are selected on the basis of technical merit, at the same time it should establish the cost of the consultancy service. The system is often abused and it would be useful to debate its effectiveness in this Seminar.

I would like to pose a few questions:

- In the two envelope system it is expected that the Client will open one envelope - from the first placed Consultant. How many Consultants have had the experience of receiving back their unopened second envelope when they were unsuccessful ?
- Project proposals require quite properly that the Consultants should elaborate in full the man-months input for various categories of staff. It is quite a simple matter for the adjudicators of Consultants' proposals to compare man-month allocations from competing Consultants. This will certainly give clear indications of cost differences. How many Consultants have experienced in negotiations the request from a Client to reduce man-month input because competitors have indicated that they could carry out the assignment with a lower man-month input?

One international lending agency is moving towards the adoption of a formal tender process for consultancy services. This requires that a Consultant prepares a financial bid in a manner which makes all bids comparable. The agency still proposes to use the two envelope system, opening the 'Tender Price' envelopes which are marked in the 'top category' of technical merit.

There is an inexorable movement in this direction and it will ultimately change the role of the Consultant to that of Design Contractor - it is a movement which I find regrettable. However they should at least have some of the privileges accorded to Contractors, namely that tenders and awards are made public. In this way they can more easily decide whether they wish to participate in a particular competition or in a particular country in much the same way that Contractors tend to limit their bidding activities.

Nobody in this Seminar would argue with the proposition that the Client's needs are paramount. His best interests are served by appointing the Consultant best qualified to undertake a particular project to meet the aims and objectives of a study at the lowest overall cost to the Client - but this does not mean that the cost of the consultancy is necessarily lower than that offered by other Consultants; possibly the opposite.

Overemphasis on price in selection and employment procedures takes all flexibility away from the Consultant, encourages the firm to do cut-rate work, encourages the employment of lower-paid staff and, in general, lowers project quality. Some authorities treat the employment of Consultants like the procurement of materials and plant; this approach rarely yields the results that were hoped for and will increase the likelihood of the Client paying more for the project than he should.

Attributed to John Ruskin:

"There is hardly anything in the world that some man cannot make a little worse and sell a little cheaper and the people who consider price only are this man's lawful prey."

Terms of Reference are frequently written badly - ambiguity and lack of clarity lead to misunderstanding and a wide range of interpretation by Consultants. Since the document forms not only the means of expressing aims and objectives, but also the choice of Consultants and ultimately the success of the enterprise, it is of great importance that careful attention is given to its formulation.

Persons drafting Terms of Reference who will normally be on the staff of the Client, should themselves be familiar with the type of work the Consultants will be called to perform. If they are not, they should employ someone who is. This person may be an individual Consultant and, if so, in the interest of impartiality, should be disqualified himself (along with any parent firm) from taking part in the subsequent consulting assignment.

It is often helpful for the Terms of Reference drafters to imagine that they themselves will be leading the team which is conducting the assignment. This stimulation will also help in estimating the assignment's cost, but the drafter should take care to recognize that this approach may not be the best and it should not be imposed on the Consultant.

The drafters should be familiar with the country of the assignment and the sector into which the assignment fits. If the assignment relates, say, to run-of-the-river irrigation, they should know how it relates to the country's irrigation programme and how that programme, in turn, relates to the agricultural development programme.

Seasonal variations should be known (field work should not start at the beginning of the rainy season) and national holidays may have an effect on the Proposed assignment.

The project areas must be visited by the drafter. The points to look for will be both project-related (types of crops or river currents) and logistics-related (transport facilities, availability of field accommodation or accessibility for drilling rigs).

The drafters should be able to respond to such questions as "Which person will the Consultant report to ?" "What facilities will the Client provide ?" "What will be the counterpart arrangements ?"

The environmental aspects of the assignment should be considered at an early stage and, if necessary, outside assistance secured to help identify environmental considerations that should be included in the Terms of Reference. Guidelines on environmental aspects should be covered in the Terms of Reference.

Transfer of skills should be considered. The potential is greater where foreign Consultants are employed and skills can be transferred to local consulting firms working in joint venture with their foreign partners. The Client may wish to see additional time and money allocated to training.

The drafters should determine the extent of the information which will be available to the Consultants and which will be listed in the Terms of Reference. This information may include past studies, existing data and records, aerial photographs or maps. The more data the Consultant can be given, the less likelihood there will be of repeating previous data-gathering work.

Finally, as a Consultant, one is often perplexed by ambiguities and inconsistency in Terms of Reference; they are frequently rambling and lead to much misunderstanding and confusion. In the words of Henry Thoreau, I would plead for brevity and clarity:

"Not that the story need be long, but it will take a long while to make it short."