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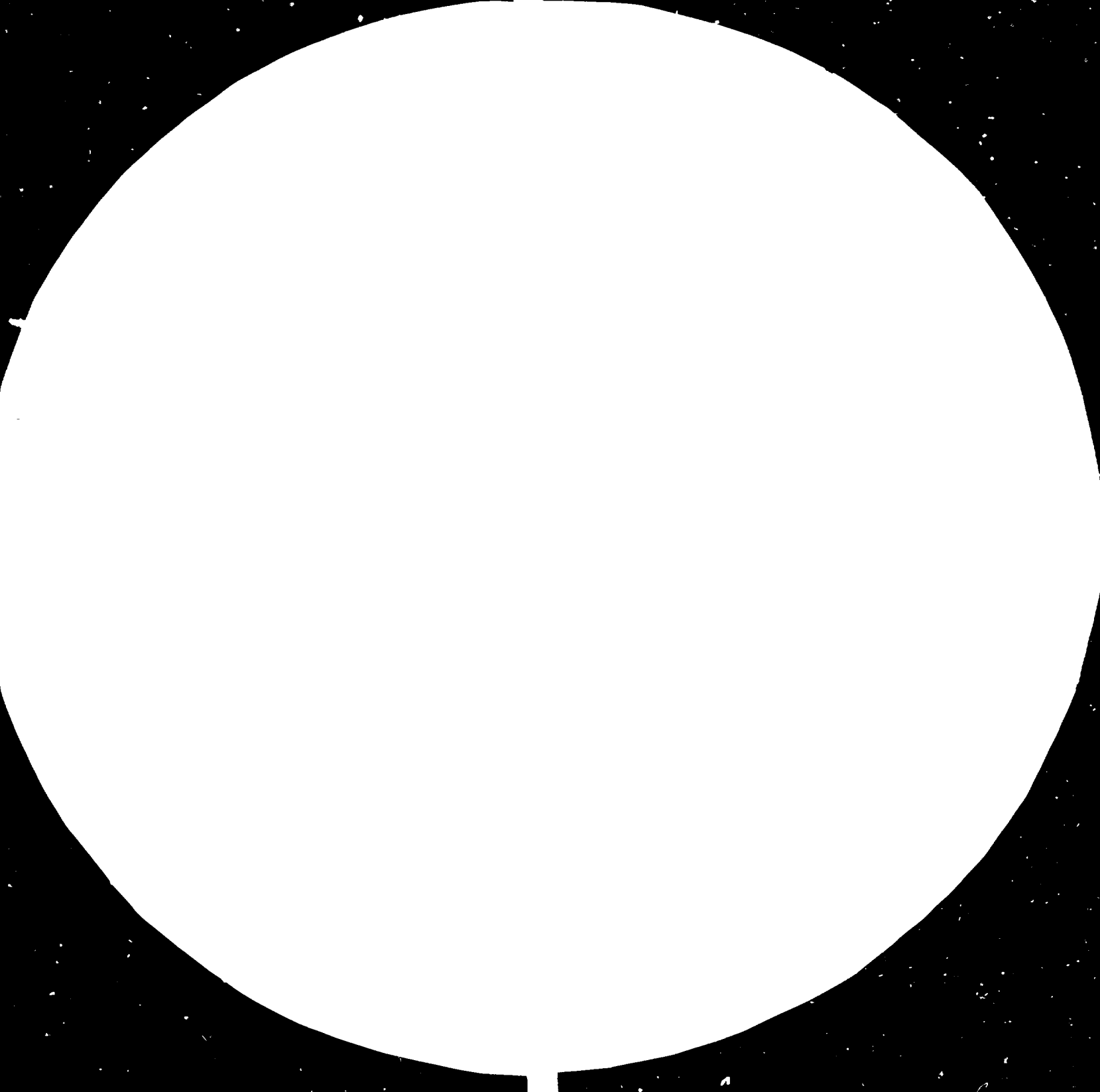
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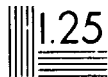
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DEVELOPMENT OF STANDARDIZATION  
AND QUALITY CONTROL  
DP/SRL/82/003/11-01/31.3.K  
SRI LANKA

Technical report: Development of Industrial  
Consultancy Services

Prepared for the Government of Sri Lanka  
by the United Nations Industrial Development Organization, acting as  
executing agency for the United Nations Development Programme

Based on the work of Ervi Sirvio  
Consultant in Industrial/Production Engineering

United Nations Industrial Development Organization  
Vienna

This report has not been cleared with the United Nations Industrial  
Development Organization which does not, therefore, necessarily share  
the views presented.

from V. Kozlov

EXPLANATORY NOTES

- SISI = Sri Lanka Standards Institution  
(National standards body)
- SLS Mark = Sri Lanka Standards Mark (a quality certification  
mark demonstrating conformance to standards)
- Rs. = Sri Lankan Rupee (about US \$ 0.037)

ABSTRACT

This report covers a part concerning "Development of Industrial Consultancy Services" by SLSI of the project "Development of Standardization and Quality Control" (DP/SRL/82/003/11-01/31.3.K).

The mission lasted six months, from November 1984 to April 1985.

The Duties and the Results were mainly:

- a) Identify areas where Industrial Consultancy is needed for upgrading standardization practices and quality.

The investigations showed that there is a big need in many kinds of industries to develop especially quality assurance.

- b) To advice and assist to set up a Consultancy Unit within SLSI.

Organization and systems were planned and taken in use for consultancy services.

- c) Training of the staff.

Three Training Courses were arranged mainly for over thirty staff members. Seven Consultants were trained on the job in consulting assignments. Consulting Manual has been written.

- d) Provide necessary consultancy services in association with the national staff.

Nine proposals for consultancy to different kinds of industries were written. During the mission were 07 of these sold and started and two finished. The sold proposals include in total about 150 consulting days and the total fee (without travelling costs) is about Rs.91,000. During the mission total 7 Consultants have worked in industries together about 55 days and the

corresponding consulting fees (without travelling costs)  
are in total about Rs. 35,000.

There are also given in this report recommendations for the  
future separately to SLSI Management, the Sri Lanka Government  
and UNDP/UNLDO Project Management.

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## INTRODUCTION

In recognition of the importance of standardization and quality assurance as necessary adjuncts to sustain and accelerate the economic development of the country, the Government of Sri Lanka concluded in 1982 an agreement with UNIDO to execute a large scale project (DP/SRL/82/003/A/01/37) aiming at developing standardization and quality assurance activities in Sri Lanka.

As a part of this project Industrial Consultancy Services are developed in following way:

"The Industrial Consultancy Unit will be established as a part of SLSI and will be located within SLSI. The ultimate objectives of its functions will be to ensure a better utilization of natural and human resources and increase in efficiency and quality in industrial production thus making products more competitive, and the development of a consultancy scheme for industrial enterprises and public institutions concerned with industrial development."

More background information is given in the Consultant's Job Description. The main practical functions are mentioned in the chapter "Abstract".

The Consultant's Post Title has been "Expert in Industrial/Production Engineering".

The mission started in the beginning of November 1984 with 2 days briefing at UNIDO in Vienna. After that it continued at SLSI. The duration of the mission was originally planned to 4 months. In January, it was decided to extend it to 6 months for getting more Consultant's time for installation in industries. The mission ended thus at the end of April 1985 with 2 days debriefing at UNIDO in Vienna.

The members of International and Counterpart Staff are mentioned in Annex 1 (p.30). The Consultant wishes to record his appreciations of the considerable help and co-operation afforded to him during his mission by this staff and also by many other people.

Suggested distribution of this report is in Annex 23 (p.89).

## RECOMMENDATIONS

In the following are listed Recommendations on how to continue with consultancy work and Recommendations of more general nature. They are addressed separately to SLSI, the Government of Sri Lanka and UNDP/UNIDO in descending order of priority.

### Recommendations to SLSI Management

- 1) There should be clear, if possible measurable, objectives with personal responsibility for SLSI staff and its Divisions. Training in Management should be arranged in Sri Lanka, if needed.

It is important to extend these objectives to personnel for the conduct of their day-to-day affairs. For example, now you hear too often that an Officer has taken surprisingly leave or nobody (including his chief) knows when he would be returning to work.

- 2) It should be written urgently a Job Description for Consulting Manager (Acting Deputy Director-General) and determine as to how much of his time can be used for managing consultancy work.

One full time Consulting Manager can lead simultaneously about 5 consulting assignments and sell new assignments.

It seems to be reasonable to continue with about 3-5 simultaneous assignments to the end of year 1985. Then there will be so much experience that it can be decided, what the volume and organization of consultancy should be.

With increase in demand for consultancy work, it is recommended that another Consultancy Manager be appointed who will undertake part of the consultancy managerial functions.

- 3) It is important that systematic consultancy techniques are followed and developed further. Especially time schedules and Consultant's reports must be controlled continuously by Consulting Manager. Code of Ethics and Consulting Norms should be revised when more experience has been gct.
- 4) Later on when good reference assignments have been fulfilled it should be written about these case studies for publishing. It could also be good marketing to present these cases on public conferences, etc. by SLSI people or by the customers.
- 5) The fees for consultancy should be raised considerably, perhaps to about the double in the near future.
- 6) The results of consultancy are mainly dependant on the quality and experience of Consultants.

It is very important to develop their skills. They must be given especially opportunity to learn of each others by common assignments, reviews and by visits to other customers plants, etc.

The plans of SLSI Management to send Officers to industries for gaining of practical experience is highly recommendable, especially for Consultants, and should be fulfilled as soon as possible.

Incentive Bonus Scheme is very important for Consultants personally. It should be monitored continuously and revised when needed.

- 7) For offering of broader scope of consulting services there should be established co-operation with other Government Consulting Organizations.

Human Relations and changing of people's attitudes, for example, in case of Resistance to Change, are very important in consultancy. Therefore, it should be established co-operation also with Consultants specializing in Behavioural Sciences.

- 8) It is useful to change experiences with the Consultants of other countries. Standards Institutions. The Twinning Agreement with Indian Standards Institution should be utilized efficiently.
- 9) SLSI should be developed more outward oriented. General Public Relations activities should be increased and SLSI staff should be more out in industries.

#### Recommendations to the Sri Lanka Government

- 1) The Government is recommended to make SLSI more known in industries and Ministries. This would increase the utilization of SLSI's versatile resources in consultancy for improving of productivity of industries. Regular meetings could be held between the Ministries and SLSI.
- 2) The Government should increase by all means the Quality Consciousness of consumers and industries.

Many industries complain that they cannot compete with low quality, cheap imported products. The quality inspection of these products is needed urgently.

- 3) The Government should encourage SLSI for better efficiency by giving clear objectives and by controlling the results. One example of lack of this is the metrification reform, which has stopped and don't seem to advance any more. The staff should be rewarded for good results.

The present division of SLSI in four locations makes the co-operation and communications within SLSI more difficult and causes extra costs. The Government should give money, that the whole SLSI could be concentrate in same building as soon as possible.

- 4) There should be more clear industrial policy for Sri Lanka.

The Government should improve the confidence between the Government Organizations and Private Industries.

- 5) Many Government and also private industries are so poorly managed that they should need urgently qualified Management consultancy first, after that it is time to develop their products, Quality Assurance, Internal Standardization and manufacturing methods.

The Government could help financially the Companies in this development.

- 6) There is unemployment in Sri Lanka but many industries complain that they cannot get Workers.

The Government should start and increase the vocational schooling in large scale for industries.

#### Recommendations to UNDP/UNIDO Project Management

- 1) It is recommended that also UNDP/UNIDO makes SLSI consultancy services known in connection of its contacts to Ministries, Industries and UNIDO Experts.

- 2) UNDP/UNIDO should follow up the development of consultancy services. This should be done at least in TFR-Meetings twice a year but in the beginning more often, for example, four times a year.

The best document for follow up is Periodical Report of Consulting Activities (Annex 17, p. 82 ). This report is published once a month, but it is easy to make a summary, for example, of 3 reports, if the follow up is done 4 times a year. The report shows the sales activities and utilized consulting time/money earned during the period and the backlog of consulting days and earnings now.



## I. NEEDS OF CONSULTANCY

To get an overall picture of industries, their problems and the need for consultancy, 19 Companies or factories and 5 Government consultancy organizations were visited. It was also made a market study to find out the consultancy needs.

The need for and interest in consultancy in quality and internal standardization is high. Also Companies which do not recognize immediate need for consultancy are interested in training the people in their plants.

Detailed reports are in Annexes:

- Annex 2 : Summary of visits to factories and organizations  
(p. 31 - 34 )
  
- Annex 3 : Results of market study (p. 35 - 43 )

## II. ORGANIZATION AND SYSTEM FOR CONSULTANCY SERVICES

All matters presented in this chapter have been accepted in SLSI's Technical Planning Committee and in Council. They have been taken in use during the project.

### A. Objectives and tasks

The objectives of consultancy services are:

- a) To improve the industrial productivity of the country through application of standardization and quality assurance principles.
- b) To increase an awareness of SLSI Standards and its services and thereby to improve the co-operation between SLSI and the industries.
- c) To give the SLSI staff an opportunity to solve systematically the industrial problems and to undertake development projects on standardization and quality assurance in industries.
- d) To increase the revenue of SLSI.

The main tasks are to market and carry out consultancy and training in industries concerning standardization and quality assurance.

These tasks are clarified closer in Annex 4: Tasks of consultancy services (p.44 - 45 ).

B. Organization

In general, the consultancy services are handled by the Consultancy Unit with following exceptions:

- a) Concerning training the Consultancy Unit deals only with company internal training in standardization and quality assurance and all In-plant training should be handled by the Consultancy Unit.
- b) Consultancy Unit does not deal with general training or advisory activities carried out by Implementation Division or consulting in laboratory training or testing services.

For organization of Consultancy Unit were presented 4 different solutions (alternatives). These are presented in Annex 5 (p. 46 - 49).

It was confirmed that each of all 4 solutions is suitable under different stages of development.

It was decided that at this initial stage the alternative 2 is most suitable under this arrangement. However, other organizational arrangements would be considered in the future.

In alternative 2, the Deputy Director-General will be the Head of Consultancy Unit. He uses as part time Consultants resources from Technical Divisions for consultancy projects. He is advised by the Technical Planning Committee and Director-General.

C. Code of ethics, consulting norms

Because Management Consultancy is new for SLSI and for many industries it is important that the main principles and procedures of consultancy are clear to SLSI staff and the customers.

Therefore these notes were written (Annex 6: Code of ethics, consulting norms (p. 50 - 53) . The paper has 12 paras and it is attached to every proposal.

D. Marketing of consultancy, proposal

Marketing in general

The marketing tasks are listed in Annex 4 (p. 44 - 45).

The active marketing is done by Consulting Manager and also by the Consultants. But in general, all Officers and Directors are marketing men also for consultancy. They must inform Consulting Manager about potential customers they meet. On the other hand, the Consulting Manager and Consultants must inform for example, Implementation Division and Laboratories about the customer needs from these Departments.

Because the consultancy services are new and not in general known to many industries, a brochure had been prepared about SLSI's consultancy services for distribution to potential customers.

The brochure is shown in Annex 7 (p. ~~54-58~~ 57-58). The original draft of a longer brochure is shown in Annex 8 (p. 59-63). The latter stresses also the customers' problems and the benefits from consultancy survey. These points can be also used in marketing.

It is important that the marketing efforts are made towards Company Top Managers (decision makers). For example, Quality Control Chiefs might be very interested to discuss with Consultants, but they very seldom buy services from Consultants or recommend it. Thus during marketing stress should be on the benefits to the customer (if possible in monetary terms) of consultancy than for example, systems of quality assurance.

### Proposal

The final result of marketing is the proposal (tender, offer) to potential customer. An accepted proposal will be an agreement between the Client and the Consultant.

The first prerequisite for proposal writing is that the Client knows what he wants from Consultant or in other words he must have a problem.

The proposal writing starts in general with a visit to the industry. Interviews should be arranged with the Top Manager and other key persons. It is important that these key persons who see the results of the problem will be interviewed. For example, concerning Standardization, Purchase and Assembly Departments and concerning Quality, Sales and Quality Control Departments.

Not only personal opinions but facts and figures (at least estimates) should be collected as much as possible.

The initial visit to the potential Client might last from 2 hours to 1 day.

If it is not obvious what services the potential Client needs or if there are many alternatives or if the Company is very big with different product lines or departments, it might be good to offer first a preliminary study (Prestudy). It is a survey which result is an analysis report on present situation with recommendations to actions and/or developing program.. This again might lead to writing of a new proposal.

Example of a proposal is in Annex 9 (p.64-69).

E. Execution of assignment

Main points of the execution are mentioned in the proposal. The usual steps are listed in Annex 10 (p.70).

The following are some comments on these main points and steps:

- a) Preparation in SLSI Office before starting at customer's plant may include:
  - Selection of Consultant(s).
  - Interviews of SLSI people who have visited the Client Company earlier.
  - Planning of Tentative Project Schedule (example in Annex 11, p. 71). The vertical lines with arrows indicate the progress during the time of Steering Committee Meetings. The schedules are very important tools for steering of the project.
- b) Information to the Client's personnel is very important. We must check and assist the Client's Management in giving it.
- c) Facts must be presented in figures, preferably in monetary terms, concerning, for example, analysis, objectives and follow up. Also rough estimated figures are much better than only verbal explanations. If figures are not available in the beginning, they must be found during the project.
- d) Training alone has not much lasting value. It must always be coupled with the Client's problem solving and creation of concrete development proposals.

e) Concerning program organization, we must instruct the counterparts to work systematically.

- All tasks must be given in written form with time schedules for completion of the task.
- Steering Committee Meetings must be held regularly and they must be carefully prepared and conducted by the SLSI staff. All meetings must have written Agenda which includes at least following: Opening, Minutes (decisions) from previous meeting, Progress Report with Time Schedule, Proposals (suggestions), Date for the next meeting. All important proposals must be distributed in advance.

f) Final Report is written at the end of the program and presented in the last Steering Committee Meeting. Its purpose is:

- to give the Client a clear picture what he got for his money and for his own effort.
- to give SLSI guidance for other assignments and other Consultants as to how the job was done and results achieved.

Therefore the Final Report might include for example, following:

- Preface (reference to proposal, calendar time, consulting time used, name of Consultants, Steering Committee, Work Team, etc.).
- Summary of Results, results compared with objectives in figures and intangible results.
- The main steps of the execution, problems encountered.
- Recommendations for the future, for example, follow up system for the expected results.

- g) It is useful also for us to keep contacts with the Client after the assignment is completed. It is better to carry out another survey after 1-2 years with the consent of the Client in order to re-check that the proposed systems are working satisfactorily.

#### F. Fees for consultancy

In all consultancy assignments, we should aim at selling results to the Client. For achieving certain results, we estimate in our proposal as to how much time would be required as consulting time. If the results are measurable in monetary terms, the pay back time for consultancy costs could be worked out and it might be  $\frac{1}{2}$  - 1 year. From customer's viewpoint, the consultancy must be seen as investment. Background information about fees is in Annex 12 (p. 72-75).

Fees are in Rupees per consulting day. For the present ongoing assignments, the fees in general without travelling costs are:

Consultants	Rs. 500 per consulting day
Consulting Manager	Rs. 750 per consulting day.

The fees were set rather low because we are new in business and we didn't know the reaction of potential customers. No customer has complained of the high fees.

#### G. Staff of consultancy

Resources for consultancy are in general all Officers and Assistant Directors of SLSI, total about 66 people. How these Consultants are selected was discussed earlier in the chapter "Organization".



A questionnaire was sent to all these Officers concerning their suitability and willingness for consultancy. Similar questions were asked from those who participated in consultancy training (28 people) program.

The summary of the answers:

- a) Many scientific and technical areas were represented among SLSI staff.
- b) Majority of the staff has attended training courses in quality and/or standardization in Sri Lanka or abroad.
- c) Very few of the staff had any industrial or managerial experience before they came to SLSI.
- d) Nearly all are willing to participate in consultancy.
- e) About 2/3 of the trained judged their suitability for consultancy as "great" and about 1/3 as "medium". 85% of them judged their availability as "good" and 15% as "medium".

However those who expressed their willingness to undertake consultancy may need further training and experience in industrial problems before they are given consultancy work.

Suitable education and industrial experience in the same or similar area where consultancy is done, are necessary. Personal qualities are very important and a good Consultant is in general:

- good leader, people oriented;
- results oriented;
- analytical and systematic;
- good salesman.

There are suitability tests for potential management Consultants. These can be recommended especially if full time consultancy are to be appointed to the SLSI staff.

Industrywise specialization of Consultants might be partly necessary. This is possible due to SLSI's versatile resources. There are also industries where more generalist type of Consultants are good enough. Specialization due to services is also needed, for example, training or statistical quality control.

Consultancy is in general team work. In all assignments, there should be 2 Consultants, in large ones may be more.

One of the Consultants is Consulting Manager, who is responsible for the planning, marketing, direction and control of usually many assignments.

How should the total consulting time be divided between Consultant and Consulting Manager? It depends on the nature of the assignment, experience and specialization, etc. A rule of thumb is that the time of Consulting Manager is 1/5 of that of the Consultant. Or an average every time when the Consultant has worked about 5 days at Client's plant, the Consulting Manager comes to spend 1 day for planning and controlling of the assignment. This means that one full time Consulting Manager can lead simultaneously in general 5 assignments.

The Job Descriptions for Consultant and Consulting Manager are in Annex 13 (p. 76-77 ).

For rewarding of Consultants for jobs well done and for making consultancy attractive, an Incentive Bonus Scheme was developed. This means that 25% of consulting fees is distributed to Consultants after successful assignments. The Scheme has been approved by SLSI Council and is presented in detail in Annex 14 (p. 78-79).

It is very important that the Consulting Manager controls the quality of assignments and conditions for getting bonus, which are:

- a) The top Client (for example, the Chairman of the Steering Committee) is satisfied and he is willing, if needed, to write a letter of recommendation to Director-General of SLSI and that the assignment can be used as reference.
- b) The objectives have been achieved within the original time schedule or amended time schedule. In latter case, the delay must have been caused wholly by the Client and accepted and recorded in Steering Committee Meeting.

#### H. Planning, controlling and reporting

For overall review of consultancy work by Consulting Manager and SLSI Management, some forms have been designed and installed.

Consultant's Weekly Report (Annex 15, p. 80) is filled by Consultant per assignment and sent weekly to Consulting Manager. Its purpose is to inform Consulting Manager about the progress of the assignment. Billing of customer is based on utilized consulting time given in these reports.

Assignments Summary Schedule (Annex 16, p. 81) is filled by Consulting Manager and distributed and discussed in every Technical Planning Committee Meeting (once a month). On schedule there is a rough total plan for all ongoing, new and proposed assignments. Its purpose is to help the Management to plan and control the assignments and resources.

Periodical Report of Consulting Activities (Annex 17, p. 82 ) is also filled by Consulting Manager and discussed in Technical Planning Committee once a month. This report shows mainly:

- What proposals have been written and sold/lost since previous meeting.
- How many consulting days have been worked and how much money earned since previous meeting.
- What is our backlog of consulting days and earnings now.

The purpose of this report is to give an overall picture of what has been done and how much we have of consultancy work is left.

List of Potential Customers (Annex 18, p. 83 ) is also maintained by Consulting Manager and discussed in every Technical Planning Committee Meeting. It is important that all essential leads and contacts concerning potential customers are on the list and will be discussed and evaluated.

### III. TRAINING OF THE STAFF

3 training courses were arranged for Consultants during the project.

- a) General Training Course on Consultancy
  - 10 hours during 24 - 29.1.85
  - Participants: 36 staff members (Standards Officers, Assistant Directors and Directors)
  - Program: Annex 19 (p. 84).
  
- b) Workshop on Quality Circles
  - 5 hours during 18 - 19.2.85
  - Participants: 11 staff members
  - Program: Annex 20 (p. 85).
  
- c) Workshop on Experiences of Ongoing Assignments
  - 5 hours during 24 - 25.4.85
  - Participants: 35 staff members
  - Program: Annex 21 (p. 86).

Training on the job (consulting assignments) has been the most valuable training. This way 7 Consultants have been trained..

For guidance of consultancy work, a Consulting Manual For Consultants was prepared. Its table of contents is in Annex 22 (p. 87 - 88).

#### IV. INSTALLATION IN INDUSTRIES

During January - April 1985, 9 proposals were written to different kinds of industries (Annex 17, p. 82 ). Of these proposals, 7 have been sold and ~~2 corresponding no offer~~. The sold proposals include in total about 150 consulting days and the total fee (without travelling costs) is about Rs. 91,000.

This indicates that the demand for consultancy and the possibilities of selling are considerably big.

The first assignment started at the end of January 1985 and the other 5 during March - April (Annex 16, p. 81 ). 2 assignments were finished during the project time before the end of April. In total there have been 7 Consultants in assignments. They have utilized so far about 55 consulting days and the corresponding consulting fees (without travelling costs) are about Rs. 35,000.

Some observations about the first assignments:

- a) The level of development varies very much in different Companies.

The Top Management in many Companies is very positive to our proposals at the developing stage. However, we have no experiences as to how their support will continue when the most difficult stage, the installation, starts.

There are however, many industries which have not developed themselves their production or products for a long time. The developing potential is high for our assignments but the industries own staff is not used to development and may resist change.

- b) Some industries have other problems, which make developing of quality systems and standardization difficult, for example:
- No Company strategy in general.
  - No infrastructure for support.
  - Production technology and working methods on so primitive level that achieving of quality is very difficult.
  - No willingness to invest on quality, for example, concerning control equipment.

- c) All Companies and sometimes our Consultants are not used to evaluate in terms of figures and money values instead of often long verbal explanations.

Also estimated figures give in general greater interest among Top Management.

- d) Many Consultants have still much to learn concerning simple presentations and short report writing.

Most Consultants have not filled the Consultant's Weekly Report although it is a very important tool for controlling of assignments.

- e) One main reason why the industries use Consultants is that they achieve results quicker than their own staff. Therefore, keeping to time schedules are very important.

In some cases the Consultants have neglected schedules themselves or have not demanded the Client to keep to time schedules.

If the assignment is behind the schedule, many kinds of difficulties may arise.

During the few last weeks of my assignment, there has been a stagnation in proposal writing. List of Potential Customers is anyway long and offers new excellent sales opportunities. Continuity is very important.

It is obvious that the bottle neck now is due to non-availability of resources within SLSI, or to what extent they should get involved in this work is a policy decision.



ANNEX 1: INTERNATIONAL AND COUNTERPART STAFF

For the Sri Lanka Standards Institution

Dr. N.R. de Silva - Project Director/Director-General  
Mr. C.D.R.A. Jayawardane - Project Executive Secretary/Acting  
Deputy Director-General  
Mr. W. Tirikawela - Assistant Director (Consultancy & Training).

For UNIDO

Ms. E. Taitt - Institutional Infrastructure Branch, Vienna  
Mr. T.S. Schroll - UNIDO Office, Colombo  
Mr. J. Mattsson - UNIDO Office, Colombo  
Mr. E. Sirvio - Consultant in Industrial/Production Engineering.

For UNDP

Mr. C. Jan Kamp - Resident Representative, Colombo.

4 Project Meetings were held during the period of the Consultant attachment for reviewing the progress of the project. The participants of the meetings were:

- Dr. N.R. de Silva (Chairman)
- Mr. C.D.R.A. Jayawardane
- Mr. T. S. Schroll
- Mr. J. Mattsson
- Mr. E. Sirvio

ANNEX 2: SUMMARY OF VISIT TO FACTORIES AND ORGANIZATIONS

General

The purpose of the visits was to get an overall picture of industries, their problems and the need for consultancy.

Following Factories and Organizations were visited:

<u>Company/Factory</u>	<u>Main products</u>	<u>Ownership</u>
Ceylon Cold Stores/Colombo	Food	Private
Keels Products	Food	Private
Lever Brothers	Consumer Chemicals	Foreign
Government Owned BCC/Soap	Soap	Government
Ceylon Tobacco/Colombo	Tobacco	Foreign
Pugoda Mills	Yarn, fabrics	Government
Asian Cotton Mills	Yarn	Private
Kandygs Handloom House	Fabrics	Private
Leather Corporation/Colombo	Leather, footwear	Government
Steel Corporation	Steels	Government
Hardware Corporation/Foundry	Castings	Government
Brown & Company/Engineering Division	Tea machines	Private
Colombo Commercial	Tea machines	Government
Keselwatta Industries & Agencies	Galvanized buckets	Private
Kelani Cables	Cables	Private
Electro Plastics	Electric Accessories	Private
National Paper Corporation/ Embilipitiya	Paper	Government
Brown & Company/Mascons Mixture	Paints	Private
Gestetner of Ceylon	Duplicating ink	Private
National Institute of Business Management (NIBM)	Consultancy, training, research	Government

<u>Company/Factory</u>	<u>Main products</u>	<u>Ownership</u>
Ceylon Institute of Scientific and Industrial Research (CISIR)	Research	Government
Sri Lanka Institute of Development Administration (SLIDA)	Consultancy, training	Government
National Engineers Research and Development Centre (NERD - Centre)	Consultancy	Government
Textile Training & Services Centre	Training	Government

The need for consultancy in these industries is described in Annex 3: Results of market study (p. 35-43 ). Following general observations are made as a result of the factory visits and the market study. Some of them might be opinions expressed by some individuals met during the visits.

Findings:

- a) There seems to be no clear Industrial Policy for the country.
- b) Many Government and also private domestic owned industries are poorly managed and reluctant to development. Some Companies may compensate their industrial losses by having many commercial agencies. Many Companies should urgently need company strategy and management consultancy before any help from SLSI or money for investments from the Government.
- c) Some Companies complain that they cannot compete with imported products which they claim are cheaper and often inferior (e.g. imported electrical accessories, yarn, cast iron pipes and duplicating ink). There is no quality inspection for these imports.

- d) There seems to be lack of confidence and co-operation between private companies and Government organizations and even between companies. Very often, the Companies close their doors for competitors. Even turnover figures are kept secret. No Associations of Manufacturers exist in order to obtain advice on areas such as production technology.
- e) The vocational schooling in many branches and companies does not exist. The companies admit that training of their people in, for example, quality, is important. Some companies are suspicious concerning training because "there is a risk that people leave the company after training".
- f) Some companies wish to obtain consultancy services from SLSI free of charge.
- g) Many companies complain that SLSI is not known to industries. Statements made were: "SLSI is a dead company", "We didn't know that you have a textile laboratory", "We don't know what standards you have written", "More propaganda for consumer standards", "SLSI does not have sufficient authority", "SLSI should be organized on membership basis". Some companies want to have National Standards for more products, for example, printing products, matches and shoe sizes. On the other hand, some companies seem to expect much from the Government and SLSI without doing anything themselves.
- h) Some companies use foreign standards although there exist SLSI Standards. For example, British Standards are used for cement and concrete, cast iron pipes and for some rubber and electrical products and steels, PVC pipes and fittings are bought in some cases from Japan or even from local manufacturer using foreign standards. One Mechanical Engineering Company uses in general British Standards because they have earlier been a British Company.

- i) Metrification seems to advance very slowly in some areas.  
In mechanical engineering, imperial sizes are used for local fasteners. Imported steel standards are in imperial sizes which may be cheaper than metric sizes as they might be obsolete in other countries. It is the same thing with the sizes of writing paper. The metric sizes A4 and A5 are rare. The Journalists, TV and radio still live in imperial age concerning lengths, distances and areas.
  
- j) Some companies are not interested in SLS mark, because "the clients are not interested and they say that their products are better than SLS marked products", for example, cables and consumer chemicals. On the other hand, one company claimed: "SLS mark should be made mandatory for essential consumer goods".
  
- k) The need for consultancy work in quality improvement and in internal standardization seems to be fairly high. Some companies even don't know the quality level which the customers need. Many companies complain that they don't have equipment and facilities for quality control or that already the quality of raw materials is poor. Some companies admit that the biggest problem is too low quality awareness of their people or customers. Internal company standards seem to be rare. The primary task is to get the companies to realize the importance of these things for themselves.

### ANNEX 3: RESULTS OF MARKET STUDY

#### General

The study was carried out in November-December 1984.

The purpose was:

- a) To find out areas and scope of consultancy needs in general.
- b) To obtain sales leads.

The study was made by sending a covering letter (p.39 ) and a questionnaire (p.40 - 43) to industries for filling in and returning. The questionnaire was designed so that it was as easy as possible to fill in. The tabulated figures (p.41-43) indicate the number of answers received which will be explained later.

The papers were sent to all kinds of industries:

- different areas and products;
- different size of companies;
- private and Government owned;
- SLSI's earlier "customers" and "non-customers".

The total number of industries to which the questionnaire was sent, was 246.

#### Summary of results

The total number of industries which answered was 50, that means, the response was 20%. The low response may be partly due to the many questionnaires industries have got in recent time from the SLSI, or may be because many companies simply don't know what SLSI is. The new name of SLSI is not known yet and many people of SLSI's own staff still use the old name "Bureau of Ceylon Standards" also in discussions with outsiders.

The total number of the companies which answered were:

Private - 36

Government or Semi-Government owned - 14.

Their main products were from following areas:

Chemicals	11
Textiles	9
Leather or rubber	7
Food, beverages	5
Cement or concrete	3
Mechanical engineering	3
Steels, castings	2
Electrical engineering	2
Others, one of each total	<u>8</u>
	50
	==

Even if the response was low, the answers give clear indications about the need for consultancy in general. In addition, some answers and factory visits gave concrete sales leads.

The answers are too few that one could make difference between the needs of different product areas. The needs of Government Industries are greater than those of private companies, but many of them have other bigger problems which must be solved first.

In the following is a summary of the replies received, the most of them are in the tabulated figures in the questionnaire (p.41-43). Following comments are given to the questions nos. 7 - 18.

7. Your problem area No. 1, in general:

Many have not answered. Answers vary much, no clear tendency.

8. Possibilities to improve by standardization and quality control in the company in different areas:

Major improvements are possible especially in purchasing, stock keeping, inspection and testing, meeting of customers needs/orders, production process, facilities management and in packaging.

There is no significant difference in the need between standardization and quality control.

9. Use of standards:

Use of other National Standards is considerably high. British Standards are used in most cases. There are of course, areas where Sri Lanka Standards do not exist, but even if they exist, in many cases foreign standards are preferred.

The large companies, and especially the subsidiaries of multinational companies seem to have their own company standards.

10. Need to develop own company standards:

Most companies think that there is a need.

11. Present problems in using standards:

Most companies did not answer or the answer was: "no problems".

12-13 The main problems in use of quality control:

The by far the most usual reasons were lack of equipment and facilities for quality control. Many companies also mentioned the lack of quality awareness of their people.



14. Own resources for developing:

These were assessed in most cases evenly as good or medium. The availability is in some cases poor.

15. Attendance of SLSI courses:

Nearly half of the companies indicated that their people had attended. Only a few assessed the results and they were good.

16. Use of Consultants before:

About  $\frac{1}{4}$  of the companies had used Consultants. It is possible that in most cases, Consultants had not been in management aspects, but in technology oriented subjects. The assessment has been in most cases good or medium.

17. Consultancy help from SLSI:

Surprisingly, many companies think that SLSI could help them in the near future or later. Many companies didn't answer at all, only one said "no".

18. Comments:

Only a few companies had some comments.

Project Secretariat:  
SRI LANKA STANDARDS INSTITUTION  
618 2/1 GALLE ROAD  
COLOMBO 3  
SRI LANKA.



PROJECT ON DEVELOPMENT  
OF STANDARDIZATION &  
QUALITY CONTROL

## UNITED NATIONS

එක්සත් ජාතීන්

TEL: 580462

Our Ref: BCS/NDP/21

21 November 1984.

Dear Sir,

### CONSULTANCY IN STANDARDIZATION & QUALITY CONTROL

We intend setting up a Consultancy Unit in our organization. Its purpose is to help the industries to improve their productivity through standardization and quality control by consultation and training.

For this purpose, we make first a market study with the attached questionnaire. We would be grateful, if you could kindly fill in the questionnaire and send it to us before 17th December 1984. We have tried to design it, so that it is easy to fill, but if you encounter any difficulties in filling, please get in touch with Mr. Wajira Tirikawala, Assistant Director (Consultancy & Training), Tele. 597009.

Thank you.

Yours faithfully,

A handwritten signature in cursive script, appearing to read 'C.D.R.A. Jaywardane'.

C.D.R.A. Jaywardane  
for Project Executive Secretary  
SRI LANKA STANDARDS INSTITUTION.  
Encl.

-/ACR

UNDP Project on Development of Standardization  
and Quality Control

QUESTIONNAIRE

CONSULTANCY IN STANDARDIZATION AND QUALITY CONTROL

GENERAL

1. Name and address of the Company or Enterprise:
  
2. Whether Private/Semi-Government/Government:
  
3. Branch:
  
4. Main Products:
  
  
  
  
  
  
  
  
  
  
5. Size of the Company/Enterprise:
  
  
  
  
  
  
  
  
  
  
6. Any other details:

DEVELOPMENT POTENTIAL

7. Your problem Area No. 1, in general:

8. Do you think that it would be possible to improve the productivity and profitability of your Company by systematic standardization and quality control in the following areas:

	Yes		No
	Much	Little	
<b>Purchasing</b>			
- Standardization of materials	28	08	05
- Quality control of materials	28	08	04
<b>Stock-keeping</b>			
- Standard for storage of materials	22	09	09
<b>Product development and design</b>	11	11	06
<b>Facilities Management</b>			
- Standard for maintenance of equipment	23	13	05
- Standard for calibration of instruments	22	07	06
<b>Production process</b>			
- Process standards/operation standards	25	10	05
- Process quality control	26	06	04
<b>Inspection and testing</b>			
- Standard for inspection	26	11	05
<b>Packaging</b>			
- Standard for packaging materials	19	13	07
- Quality control of packaging materials	16	15	07
<b>Warehousing of products</b>			
- Standard for warehousing	14	14	11
<b>Meeting of customers needs/orders</b>			
- Customer standard for quality and delivery	23	13	05
- Handling customer complaints	23	10	06
<b>Service, spare parts</b>			
- Standard for service	21	14	04
- Quality control of spare parts	18	13	04
<b><u>USE OF STANDARDS</u></b>			
9. What standards do you use mainly?			
- Sri Lanka Standards	13	07	01
- Others (National or company standards)	18	07	02
- Own company standards	13	06	02

Yes		No
Much	Little	
19	13	08

10. Do you think it is necessary to develop your own company standards?

11. Present problems in using standards:

USE OF QUALITY CONTROL

12. The main deficiencies and problems encountered in controlling quality:

13. Specific quality problems:

USE OF OUTSIDE CONSULTANTS AND TRAINING

14. Your own company resources for developing of standards and quality control:

Knowledge	23	Good	17	Medium	01	Poor
Capability	23	Good	19	Medium	--	Poor
Availability	20	Good	16	Medium	06	Poor

15. Has anyone in your company attended Sri Lanka Standards Institution's courses? Results:

16. Have you used Consultants before, and in which areas?

Your assessment

10 Good

11 Medium

02 Poor

17. Do you think that Sri Lanka Standards Institution could help you by consultancy and/or training in standardization and/or quality control in your Company?

In the near future  
Later

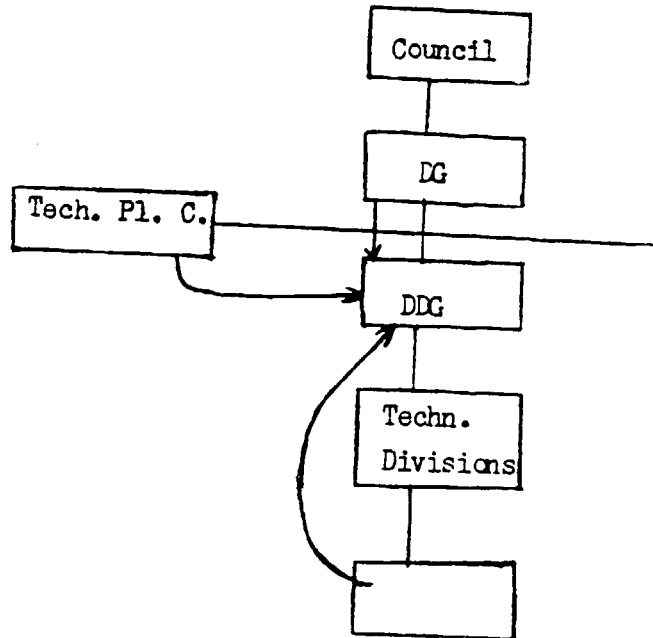
Yes	Perhaps	No
16	15	02
10	10	01

18. Any comments of interest:

- Writing of new standards which are unique.
- Planning and installing a system of Company Standards.
- Quality assurance:
  - Determining the level of quality.
  - Planning of quality levels.
  - Quality control.
  - Planning and installing of the system and organization for quality assurance.

2) Deputy Director-General is Head of Consultancy Unit

- He markets and co-ordinates.
- Project organizations.
- Resources from Technical Divisions.
- Back up: Technical Planning Committee and Director-General.



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- No authority problems, not even towards customers.
- All resources utilized.
- Easy to start
- Deputy Director-General learns to know Assistant Directors and Standards Officers.
- Rewarding for Assistant Directors and Standards Officers.

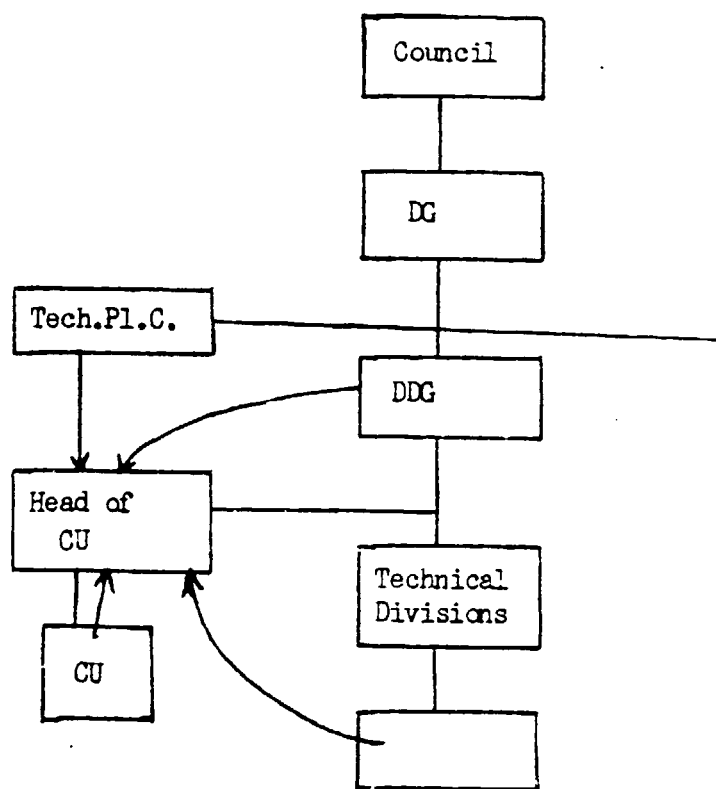
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- Has Deputy Director-General time and interest enough?



3) Consultancy Unit consists of full time person(s) within Sri Lanka Standards Institution

- Consultancy Unit is a staff.
- Consultancy Unit consists of one person (Head) who markets, co-ordinates and consults or he can have one or more full time Consultants (generalists) in Consultancy Unit.
- Project organization.
- Resources from Consultancy Unit (generalists) and Technical Divisions (specialists).
- Back up: Deputy Director-General and Technical Planning Committee.



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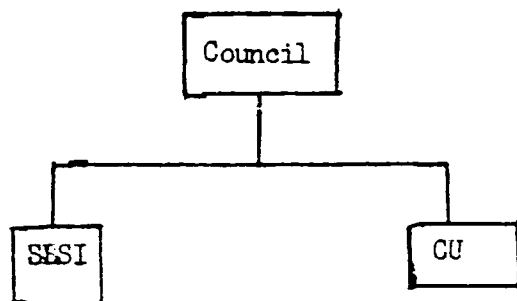
- Consultancy Unit concentrates totally in consultancy and training.
- Easy to expand and develop activities.

-

- Risk: Authority problems.
- Risk: bad co-operation with Technical Divisions.

4) Consultancy Unit is a Separate Company

- In principle Government owned or Private.
- Better: Government owned and under Sri Lanka Standards Institution Council.
- Parallel organization with Sri Lanka Standards Institution.
- Resources from Consultancy Unit (generalists) and Sri Lanka Standards Institution (specialists).
- Back up: Council.



+

- Own profit centre, budget and cost control.
- More free to operate and develop activities.
- Easier to use outside consultants.

=

- Risk: bad co-operation with SLSI, Council has no time to intermeddle.
- Risk: unsound competition with SLSI.
- The Act will be revised.

-/ACR

ANNEX 6: CODE OF ETHICS, CONSULTING NORMS

- 1) We shall accept only those assignments which are beneficial to our client and which we are qualified to undertake. We shall assign qualified persons in order to provide service.
- 2) We shall regard as strictly confidential all information concerning the business of our client. We shall serve concurrently two clients who are competitors only with the full knowledge of both.
- 3) All documents given by the client during the program shall be treated as the property of the client. We expect that all the necessary documents and information are provided to us readily by the client. Our client is not allowed to give to a third party any documents relating to techniques used in the consultancy.
- 4) We shall supply the client's employees with information on principles and techniques used so that improvements suggested may be effectively administered by them even after completion of our assignments.
- 5) The client's organization and we shall not employ people from each other, who have participated in the assignment during the program or within a year after it has ended. We shall also not initiate discussions with any member of a client's organization regarding employment with another client.
- 6) We shall not directly or indirectly injure the professional reputation, prospect or practice of another Consultant. We shall not continue another Consultant's work without prior discussion with him.
- 7) The proposal written by us is the contract between the client and us. The targets and the scope of the program are determined in the proposal. Any changes in these must be agreed in written form by the client and us.

- 8) The planning and fulfilment of the programme shall be in accordance with the guidelines given in the proposal.
- We presume that the Management of the client gives full support for the programme and together with the staff participates in it during the entire period of the programme as determined in the proposal.
  - The client provides our consultants office space and clerical service when they are at the client's plant.
  - We have the following responsibilities:
    - To lead technically the development work and programme personnel.
    - To determine the appropriate working methods and techniques.
    - To make recommendations for solving technical problems.
    - To plan and carry out the training which is needed. However, if special training is needed concerning the client's products, technologies, etc., it should be carried out by the client's specialists.
    - Time schedules and controls are planned and executed with the cooperation of the client's personnel. Progress reports and the final report are also submitted to the client's management.
    - The major part of the consulting time will be spent in the client's organization.
    - We shall observe working hours of the client's organization.
- 9) We are not responsible for such delays of fulfilment of the programme which are caused due to circumstances within the client's organization, such as client's personnel not participating to the extent as determined in the proposal.
- We take responsibility to inform the management of the client in advance on the expected delays.
- 10) The consulting time includes:
- the time which the Consultant uses at client's plant or in other agreed place for the fulfilment of the program.

- the time which the Consultant uses in our office for preparation and planning before and during the program.
- the time which the Consultant uses in our office for discussions with our management concerning the progress and fulfilment of the program.

This total consulting time corresponds with the consulting time which is given in the proposal.

We plan the use of total consulting time so that our duties will be fulfilled.

11) The consulting fees and costs are mentioned in the proposal.

The mentioned total fee can be exceeded only if there has been an agreement for extension between the client and us.

The consultancy fees are charged on the basis of consultancy time used or as a lump sum. The time unit is a day or  $\frac{1}{2}$  day.

We bill also separately for real travel costs outside Colombo City which may consist of:

- 1) Travelling costs due to price of tickets, taxi costs, costs of company or own car (compensation per km);
- 2) Daily subsistence allowance.

We adjust the consulting fees once a year for those assignments which last more than a year. The basis for the adjustment is the increase of our salaries and other costs.

We send the bill to the client once a month during the assignment or after the assignment is finished. In the bill we specify:

- Name of the assignment and Consultant;
- Dates and number of days used;
- Fee per day and in total;
- Real travel costs;
- The total sum of the bill.

The bill will be sent to the client with 2 copies.

The conditions for payment: 30 days.

- 12) If the assignment doesn't give the expected results, the parties have the right to give a written notice for terminating the assignment. The client shall not initiate termination until 2 weeks have elapsed. Concerning us this period shall be 4 weeks.

Force majeure (circumstances beyond the control of both parties) releases both parties from their duties from that date the work cannot be continued.

-/ACR

ANNEX 7

CONSULTANCY  
SERVICES

on

INDUSTRIAL STANDARDIZATION  
AND  
QUALITY ASSURANCE

Offered By  
SRI LANKA STANDARDS INSTITUTION

#### OBJECTIVES OF OUR CONSULTANCY SERVICES

The main objective is to improve productivity through internal Standardization and Quality Assurance activities.

#### TYPES OF SERVICES OFFERED

The consultancy services offered by the SISI may consist of one or more of the following types depending on the needs of the enterprise:

- a) Diagnostic Study
- b) Development of Inplant Quality Assurance Systems
- c) Development of Internal Standards
- d) Inplant Training Programs on Quality Assurance
- e) Establishment of Laboratory Facilities.



BROAD DETAILS OF THE SERVICES

a) Diagnostic Study

Evaluation of the 'Present Status' of the Company with regard to the prevailing practices and methods for assuring quality through internal survey leading to identification of problem areas and suggestions for corrective action.

b) Development of Inplant Quality Assurance Systems

Establishment of a quality policy for the organization. Evolving a self-sufficient system within the Company for tackling the day to day problems of Quality Assurance.

c) Development of Internal Standards

Establishment of Internal Standards for materials, products and processes and establishment of a scheme to ensure their effective implementation.

d) Inplant Training Programs on Quality Assurance

Training programs on Quality Assurance 'tailored' to the needs of the Company. These programs aimed at different levels of Management and the work force will cover basic principles, methodology and human aspects of Quality Assurance.

e) Establishment of Laboratory Facilities

Advisory services on the setting up of laboratory facilities required for Quality Assurance activities.

OUR CLIENTS

Includes leading Industrialists and Trading Organizations in both private and public sector.

CONFIDENTIAL NATURE OF THE WORK

We shall regard as strictly confidential all information concerning the business of our client.

### OUR RESOURCES

A team of senior officials of the SLSI who have undergone extensive training in Quality Assurance in other countries including Japan, managed by the Deputy Director-General of the SLSI.

### HOW TO CONTACT US

Firms desirous of availing the consultancy services offered by the SLSI may contact the

Deputy Director-General  
Sri Lanka Standards Institution  
53 Dharmapala Mawatha  
Colombo 3.

T'Phone: 26051-53, 580462

for further details.

ANNEX 8: DRAFT OF THE BROCHURE

CONSULTANCY SERVICES

ON

QUALITY AND COMPANY STANDARDIZATION

Sri Lanka Standards Institution.

Our services to Industries

The main objectives of the Sri Lanka Standards Institution are to prepare National Standards, to monitor the use of them and to promote standardization and quality assurance in industry and commerce.

The task of the consultancy services within Sri Lanka Standards Institution is to improve the productivity of industries through application of standardization and quality assurance principles by consultancy and training.

For this purpose, the consultancy services uses the entire specialized staff of the Sri Lanka Standards Institution. They are experts in quality and standardization work who have been trained in Sri Lanka and in several other countries.

Are you satisfied with your past achievements on quality and on productivity?

OR

Do you have some problems which needs attention by an independent person or perhaps some assistance?

Usual Company problems connected with quality or lack of internal standards can be categorized into the following areas:

- Consumer needs and your level of quality do not match.
- Often you get complaints on your products leading to decrease in sales turnover.
- May be the quality is okay, but are you prepared to meet the demands of tomorrow?
- Sometimes the quality level and costs of production are unnecessarily high.
- Sometimes it is difficult to manufacture the required quality at the cost the consumer is prepared to pay.
- High purchasing and stock-keeping costs.
- Low productivity due to too large variety.
- High warehousing costs due to too large variety.

What do you do then?

You can call on us.

We will first come to you to discuss your problems. It might be necessary to discuss with many people in your organization and to make a short survey of the present situation. If we agree that there is a tangible development potential, we will write a proposal for your consideration. In the proposal we describe objectives, work plan, implementation methods, expected benefits and our charges.

It is up to you to accept the proposal or not. If accepted we will do the development work in your location with close co-operation with your staff.

The development work may include for example, some of the following activities:

- Determining the right quality levels for your products, planning how to achieve it and installing the changes needed.
- Setting up of activities for systematic quality control or developing the existing organization by improved methods.
- Developing internal company standards for methods, raw materials, components or products.
- Developing procedures and organization for your internal standardization work.
- Development of people by training which may include the establishment of quality circles in your work place.

You might say that you can do this job yourself. But there are reasons for inviting outside consultants. Because

- they have a fresh approach to established practices.
- they bring in specialized skills and know-how.
- they give you an independent opinion and recommendations.
- their services will shorten the time needed for the implementation of new proposals.

Some achievements of our clients in the past

- 50 per cent lower scrap cost.
- 25 per cent lower inventory cost.
- Staff capability and motivation through training and systematic project work to continue the development work.
- Better competition through higher and uniform quality.
- Ability to join the SLS Scheme of our Institution.



CONFIDENTIAL

ANNEX 9: EXAMPLE OF PROPOSAL

DEVELOPMENT OF QUALITY ASSURANCE  
IN THE SHOE FACTORY

A proposal for The Management of  
CEYLON LEATHER PRODUCTS CORPORATION  
Colombo.

March 1985  
Sri Lanka Standards Institution (SLSI)  
53 Dharmapala Mawatha  
Colombo 3.

Telephone: 26051-53.

58.

1. Preface

This proposal is based on our discussions and visits to your Corporation recently as well as our experience from other similar types of programs that we have carried out elsewhere.

2. Present Situation

For solving quality problems, there has been some organizational development during recent years.

However, many problems still exist. The ongoing Quality Contest is a positive and interesting effort to get people, especially workers, interested in improving quality. The contest cannot of course, solve all problems, but it gives a good basis for further more systematic development work at all levels.

In our opinion, the development work should be continued with a systematically drawn up program, which will be described in this proposal.

3. The Objectives and The Scope of The Program and The Expected Results

The objectives are to improve the ability to compete with other brands and to increase in general the productivity by installing a Total Quality Assurance System and increasing Quality Awareness and motivation of employees.

The scope of this assignment is confined to the Shoe Factory.

The expected results are difficult to estimate in figures at this stage. It should be done wherever it is possible during the program and at least the achieved results must be calculated or recorded. Some results cannot be expressed in figures as they are not tangible at all.

4. The Execution of The Program

We suggest that the program will be carried out in the following stages:

1) Training.

We suggest that two workshops be arranged during the ongoing Quality Contest, for example, the last week in March. The subject of this initial training will be total quality concept and quality circles and both workshops will last  $\frac{1}{2}$  day. The first one will be for the Management in English Medium and the second one for Supervisors and Workers in Sinhalese Medium.

2) Analysis of the present situation concerning the strengths and the weaknesses.

This stage consists of interviews, study of and making summaries of existing data concerning, for example, quality costs, customer complaints, scrap costs, etc. The findings will be written in an Analysis Report.

This analysis gives a basis for identification of areas for development and for estimation of potential savings.

3) Quality Circles.

Through use of Quality Circles, you also achieve better utilization of human resources of all personnel, higher work motivation and better human relations.

We suggest that there will first be carried out a pilot program with 1-2 quality circles. Concrete results of the first circle's work appear within about  $\frac{1}{2}$  year. After that the next can start utilizing the experiences of the first circle.

4) Developing of Quality Assurance System and Organization.

5) Installation of the necessary changes and follow-up of results.

## 5. Program Organization

It is very important that the program has efficient organization.

### The Steering Committee

This is a program leading team. It makes decisions concerning the program and its execution on the basis of the proposed recommendations. It should meet once a month. It consists of the representatives of your Management and of our Consultants. It might be worthwhile that even one Union representative is a member.

### SLSI

SLSI has the following responsibilities:

- To lead technically the development work and the program personnel.
- To determine the appropriate working methods and techniques.
- To make recommendations for solving of technical problems.
- To plan and carry out the training which is needed. However, if special training is needed concerning your products, technologies, etc., it is carried out by your Specialists.
- To plan time schedules and control the progress together with your personnel and report to your Management in form of progress reports and the final report.
- To work at least 80% of the consulting time needed in your Factory with close co-operation with your people. We follow your working hours.

### Program Leader

The Program Leader is your counterpart to our Consultants. He is responsible together with our Consultants for organizing and carrying out the program and reporting on it to your Management.

It is important that the Program Leader has time enough for the program.

The Work Team

The work team performs the development work and consists of:

- Program Leader
- SLSI Consultant
- Quality Circle Leaders when relevant
- Experts when needed.

Information

It is very important that the representatives of personnel groups and those people whose work will be affected by the program get continuous information about the program.

6. The Time Needed for Consultation, Calendar Period of the Program and The Costs of The Program

We estimate that the time needed for the whole program is 6-8 months. During this time, the results of the first quality circle has come and the installation has started and the next circles can start. Also main part of the results for the whole program have been installed.

The consulting time needed for the different stages (see "4. The Execution of The Program"):

Stage 1 : Initial Training  
3 consulting days

Stage 2 : Analysis  
5 consulting days

Stage 3 : Quality Circles  
12 consulting days

Stage 4-5 : Developing and Installation  
15-20 consulting days

Total 35-40 consulting days.

The division of consulting time might be different as above but the total time is the same.

The consulting fee is:

Consultant

30-35 consulting days at Rs.600/= per day = Rs. 18,000 - 21,000

Consulting Manager

5 consulting days at Rs.850/= per day = Rs. 4,250

35-40 days = Rs. 22,250 - 25,250

The division of consulting days may be different but the total cost will be the same.

The costs include travelling costs which are Rs.100/= per day.

We send the bill once a month.

We appreciate the opportunity of preparing this proposal for your consideration. We look forward to working with you on this most important program and placing in your service our organization's extensive know-how and experience in this field.

We would be grateful if the formal acceptance of this proposal is intimated to us in writing at your earliest convenience.



C.D.R.A. Jayawardane

Actg. Deputy Director-General

SRI LANKA STANDARDS INSTITUTION.

Appendix: Consulting Norms.

-/ACR

ANNEX 10: EXECUTION OF ASSIGNMENT

Steps

0. Preparations in our office
1. Information, initial, regularly
2. Analysis
  - General about Company
  - Products, organization chart, process chart
  - Written material
  - Interviews
  - Facts, figures
  - Ideas.
3. Training
  - Motivate, existing problems, ideas.
4. Developing
  - Scope, programming
  - Simple solutions
  - 80/20 (Pareto)
  - Symptom → Cause → Effect
  - Brain storming.
5. Installation
  - Planning
  - Information
  - Follow up.
6. Final Report
  - For Management
  - Results, figures
  - What, how, when, who?

S T E P S	1985														SLSI	
	MAR				APR				MAY				TENTATIVE PROJECT SCHEDULE	CLIENT/PROJECT: GESTETNER / INK		
	1	3	5	7	9	11	13	15	17	19	21	23				25
1. INFORMATION															ANNEX 11	7.3.85
2. ANALYSIS																SIGN: ES
3. DEVELOPING STANDARD SPEC.																NO: 1
QC METHODS, FACILITIES																
4. INSTALLATION																
Steering Committee																
Consulting Time	UP		Used Plan 12d		RJ		Used Plan 2d									

Week → 1 3 5 7 9 11 13 15 17 19 21 23 25 27

1. INFORMATION

2. ANALYSIS

3. DEVELOPING

STANDARD SPEC.

QC METHODS, FACILITIES

4. INSTALLATION

Steering Committee

Consulting Time UP Used Plan 12d  
RJ Used Plan 2d

1 1/2 1/2 1 1/2 1 1  
1 1 2 1 1 1 1 1 1  
1/2 1/2 1/2 1/2 1/2

ANNEX 11

TENTATIVE PROJECT SCHEDULE

CLIENT/PROJECT:  
GESTETNER / INK

DATE:  
7.3.85

SIGN:  
ES

NO:  
1



ANNEX 12

FEES FOR CONSULTANCY

1. Present fees

SLSI

The present situation is roughly following:

Consultancy & Training Division

- Consultancy has been minimal, only one assignment (Plywoods Corporation), charges not decided (impulse from the Ministry).
- Three company internal training seminars (Ceylon Tobacco Co.) about 2 years ago, for Supervisors, 2 days (12 hrs), 2 Lecturers, fee: lump sum Rs. 3500.
- Public Courses:
  - Top Management Course  
Lecturers foreign Experts (aid program), 35 participants, years 1982, 1984, one day = 6 h.  
Rs. 600 (inclusive lunch, rent of outside conference room)/participant.
  - 5 day Seminar (6 hrs/day) for Executives and Engineers (foreign Experts), Rs. 1000.
  - Middle Management Course  
  
Fees not yet determined for 1985.
- Supervisory level Course  
14 x ½ day a' 3 h  
3 Lecturers, one at a time  
23-24 participants  
Rs.300/participant.

Implementation Division:

Pre-Export Inspection and SLS mark Inspection:

These are by far the largest revenue source for IIT.

Fees are based on commodities and the size of the consignment.

Work-shop and Seminars relating to Export Inspection work, Rs.200 for one day (5 hrs), Rs. 50 per commodity per participant.

Standardization Divisions:

No consultancy or training has been done.

Laboratories:

No consultancy or training has been done.

Charges for inspections, measurements, testing, etc. are based on hourly fees separately for equipment and men.

Man hour charges are for all personnel Rs.3/h. Travel costs are not charged separately.

Other organizations

NIBM

For consultancy \$60-70/day (can be bargained).

To Ministries much lower.

"Our fees are higher than those of most competitors".

Travel costs are charged separately.

NERD Centre

Mostly energy savings assignments. No system for charging.

CISIR

Some kind of charging system exists.

Management Consultancy Companies in Western Countries

Consultancy fees vary much in different companies. They are in general fixed and per day or week.

Most companies charge travel costs separately.

2. Fees of Consultancy Unit

Determining of fees is a policy question. These should be fixed in Rupees very soon.

In the following will be presented some ideas and questions which must be answered.

- 1) We sell results. For achieving certain results, we estimate in proposal how much we need consulting time. If the results are measurable in money, the pay back time for consultancy costs might be  $\frac{1}{2}$ -1 year.
- 2) Fees are in Rupees per consulting day. Fees are determined in the proposal.

Concerning industrywise training, the consulting days include:

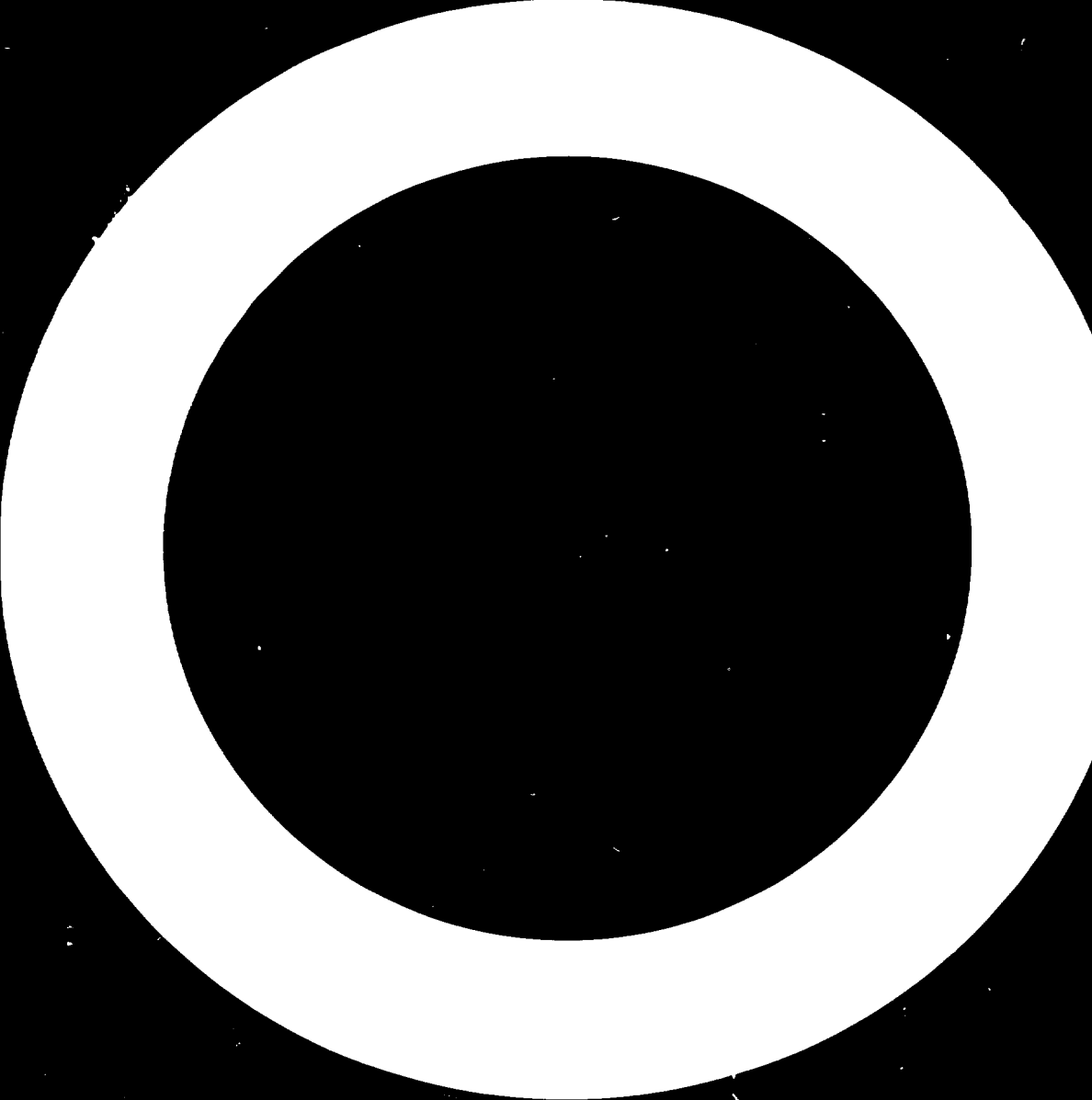
- a) preparations;
- b) training program;
- c) eventual report writing.

For internal training, a lump sum can be used.

- 3) Our fees are fixed and the same for all assignments and customers.

Or should they vary depending on:

- the art of assignment: prestudy, small/large, implementation, extension project, consultancy/internal training.
- the customer: small/large, private/Government, etc.



JOB DESCRIPTION

ANNEX 13

CONSULTANT

- A) The Consultant is responsible for the marketing aspects of consultancy services in general. On the instructions of the Consulting Manager, the Consultant will initiate discussions with potential customers with a view to promoting consulting assignments.
- B) Once a consultancy assignment is sold, the tasks of the Consultant will be agreed at the beginning of every assignment. In general they are:
- 1) Participates in planning and programming of the assignment together with the Consulting Manager and other Consultants.
  - 2) Plans the manning of team members for the assignment together with the client's Program Leader.
  - 3) Is responsible for carrying out the assignment in accordance with the proposal and with professional skill.
  - 4) Is responsible for completion of the assignment according to the agreed time schedule.
  - 5) Will act as the Convenor/Secretary of the Steering Committee.
  - 6) Is responsible for the proper dissemination of information among the work team.
  - 7) Is responsible for the fulfilment of targets and the quality of the assignment to the Consulting Manager.

CDRAJ/ACR

JOB DESCRIPTION

ANNEX 13

CONSULTING MANAGER

The main rule is that every assignment has a Consulting Manager. In exceptional cases, for example, for very small assignments and for short training courses, the Consulting Manager may not get involved as a member of the Steering Committee.

The division of work between the Consulting Manager and the Consultants is agreed at the beginning of every assignment.

The tasks of the Consulting Manager are in general:

- 1) Participate in the assignment so much that he is familiar with its different steps and its results.
- 2) Function as support and Advisor to the Consultant and criticise if needed.
- 3) Is responsible to SLSI for fulfilment of the assignment concerning the quality and the results.
- 4) Is responsible that the client is billed right. Is responsible together with the Consultant that SLSI will get the consulting fee from the client.
- 5) Set up and maintain good relations with the client's Top Management.
- 6) Is responsible for the selection of best resources within and outside SLSI depending on the nature of the consultancy assignment. Is also responsible for the development of Consultants and products within SLSI.

CDRAJ/ACR

ANNEX 14

DRAFT COUNCIL MEMO

FOR DISCUSSION BY THE TECHNICAL PLANNING COMMITTEE

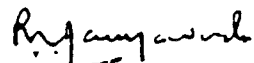
Incentive Bonus Scheme for Consultancy Work on Standardization and Quality Control

As discussed at the Technical Planning Committee Meeting held on 85.02.19, it has now been proposed (subject to the approval of the Council) that this activity be co-ordinated by the Deputy Director-General for better participation by many Technical Divisions of the SLSI. After the arrival of the UNIDO Expert on Industrial/Production Engineering in November 1984, this activity has been organized on a more formal basis. A group of Consultants selected from various Technical Divisions of the SLSI have been trained on the job and through workshop sessions on various aspects of consultancy work. The SLSI has already sold five short-term consultancy assignments during the past two months and about eight officers are involved in this work at present. These officers who have volunteered to work as Consultants have to spend a considerable amount of time both during and after office hours in order to meet the target dates specified in our Agreement with the clients. Further, they are called upon to provide "a Quality Service" in order to satisfy our customers. Therefore, the future of this activity depends on the quality of service that we can provide to our customers. In order to ensure this service, it is desirable that we provide our consulting staff a part of the remuneration that we earn from this activity as an incentive bonus. I suggest that 25% of the earnings be distributed among the consulting staff after the successful completion of the assignments subject to the condition that no Consultant earns more than his/her annual gross wages from consultancy in a given year.

I have had discussions on this matter with other public sector organizations which carry out similar services. For example, Sri Lanka Institute of Development Administration (SLIDA) pays 50% of its earnings from consultancy assignments to its staff while NIBM and ARTI pays 25%. It is very important that we develop this activity by providing

this incentive to our staff for the following reasons:

- a) It is a valuable service to the industry. It helps to improve the quality control and standardization activities in industries which are pre-requisites to obtaining the SLS mark.
- b) This activity creates a closer relationship between the SLSI and the industries which ultimately help to achieve the objectives of the SLSI.
- c) SLSI could earn a significant income from this activity in time to come. (The first five consultancy assignments involving 71 man days will bring in an income of Rs. 43,750/=.)
- d) It helps to retain the qualified staff, as this service provides a financial incentive as well as job satisfaction to our staff.



C.D.R.A. Jayawardane

Project Executive Secretary/Actg.D.D.S.

CDRAJ/ACR



ANNEX 15

CONSULTANT'S WEEKLY REPORT

Name of Consultant: S.C. Bamunmatia

Name of Client: Brown & Co Ltd

Proposal No: 56

Week ending: 85-03-22

Dates and Consulting Time utilized during the week:

85-03-18 0900h to 1050h

85-03-21 0900h to 1050h

Is the Assignment

On schedule  Behind  Ahead of

Date of next visit to the Client: 85-03-27

Brief account of work carried out:

Three visits were made to the factory for a brief works visit. General information on general pattern of executing production in different plants. Interviews with the front line shop engineers. Some data on Company have been collected.

Any problems or actions required by Consulting Manager:

Records pertaining to defective bearings and other components are not available at the company. This makes it difficult to assess the economic impact of these defects.

*[Handwritten Signature]*

Signature

This report is to be sent before Tuesday following the week under review to Consulting Manager.

Prop. no	COMPANY/FACTORY AREA	OUR SERVICE	CONS. DAYS	SCHEDULE													
				Febr.	March	April	May	June	July								
				1	3	5	7	9	11	13	15	17	19	21	23	25	27
51	Browns/Mason's Paints	Quality system and org.	30														
52	Ceylon Tobacco Tobacco	Training in Quality Mgt Level	11														
53	Gestetner of Ceylon Duplicating Ink	Quality System SLS Mark	14														
54	Kelani Cables Cables	Prestudy	6														
56	Browns/Engin. Tea and Rubber Mach.	Prestudy	10														
57	B.C.C. Ltd. Soap	Scrap Reduction 38-43		<p style="text-align: center;">NOT SOLD</p>													
58	Leather Corp. Shoes	Quality Circles System 35-40		<p style="text-align: center;">NOT SOLD</p>													
55	Keselwatta Galvanizing	Quality System SLS Mark	18	<p style="text-align: center;">NOT SOLD</p>													

ANNEX 16

ANNEX 17

Company/Factory	Proposal				Status			Fulfilled during period		Backlog left 18.3.85		
	No	Date	Old	New	Not Sold	During period		Cons. days	Rs.	Cons. days	Rs.	
						Sold	Lost					
Browns/Mason's	51	Jan. 85	x					6	19 00	21½	6800	
Ceylon Tobacco	52	Feb. 85.	x					6	9000	5	7500	
Gestetner of Ceylon/Duplicating Ink	53	Feb. 85	x			x		2½	1375	11½	6125	
Kelani Cables	54	Feb. 85		x		x		½	250	5½	3000	
Keselwatta/Galvanizing	55	Feb. 85		x	x			-	-	(18)	(9750)	
Browns/Engineering	56	Feb. 85		x		x		1	500	9	6000	
B.C.C. Ltd./Soap	57	Mar. 85		x	x			-	-	(43)	(23500)	
Leather Corporation/Shoe	58	Mar. 85		x	x			-	-	(40)	(21250)	
TOTAL				5			3		16	13025	52½	29425

No.	Company/Factory	Problem, Service	Status, Action
1	Keels Products	Re-write Standard. SLS Mark, Quality?	New visit 22.3.85
2	Asian Cotton Mills	Training of all production people	Jayawardane will contact again
3	McCallum Breweries	?	Questionnaire: Help now
4	Warner Lambert Lanka	Training in Standardization	Questionnaire: Help now
5	Coirtex	?	Questionnaire: Help now
6	Lanka Transformers	?	Questionnaire: Help now
7	Kandygs Handloom House	Training	Visited 19.11.84
8	Pugoda Textile Mills	Training Quality Circles	Visited 14.12.84
9	I.G. Browns Rubber	?	Questionnaire: Help now
10	Ceylon Cold Stores	?	Visited 26.11.84
11	Elephant Lite Corporation	Training?	Tirikawela contacted earlier
12	Nestle Lanka	?	Questionnaire: Help now
13	Lever Brothers	lectures	They will contact us
14			
15			
16			
17			
18			
19			
20			

SLSI, UNDF

ANNEX 19

TRAINING COURSE ON CONSULTANCY

TENTATIVE PROGRAM

1st day 24.1.85

- 1330 - 1400 Opening - Director-General
- 1400 - 1445 DICS - Project, Progress Review - Mr. Ervi Sirvio  
- Market Study  
- Consultancy Unit
- 1515-1600 General about Consultancy - Mr. Ervi Sirvio.

2nd day 25.1.85

- 1330 - 1600 Company Standardization and Quality Control C & T Division  
from the Consultancy viewpoint

3rd day 26.1.85

- 1330 - 1600 Techniques of Consultancy - Mr. Ervi Sirvio  
- Marketing  
- Proposals  
- Execution of assignments  
- Consultant's role

4th day 27.1.85

- 1330 - 1600 Role plays  
- Presentation of Proposal  
- Presentation of Recommendations  
Summary of the Course  
- Final Discussion  
Filling of the questionnaire

-/ACR

ANNEX 20

WORKSHOP ON QUALITY CIRCLES

Purpose:

To inform and discuss the concept of quality circles for consultancy work.

Participants: Please see Annex.

Venue: SLSI Auditorium, Wijerama Mawatha.

Programme:

1st day, 18.2.85

- 1330-1340 Opening - Mr. C.D.R.A. Jayawardane  
1340-1600 What quality circles are? - C&T Division
- Background
  - Principles
  - Experiences, results.

2nd day, 19.2.85

- 1330-1430 Quality circles as a consulting product - Mr. Ervi Sirvio  
1430-1600 Suitability of quality circles in Sri Lankan industries and what is our approach in consultancy?
- Group assignment
  - Presentation
  - Discussion.

-/ACR

ANNEX 21

CONSULTANTS' WORKSHOP - 24 & 25 APRIL 1985

Purpose:

Review and evaluate our assignments and find out what we have learned from them for the future.

Time:

24.4.85 at 1330 - 1600 hrs.

25.4.85 at 1330 - 1600 hrs.

Place:

SLSI Auditorium, Wijerama Mawatha.

Participants:

See Appendix, total 35 persons.

PROGRAM:

1st day:

Opening

Presentation of assignments and discussions:

- Mason's Mixture M/s. W. Tirikawela, P. Paranavitana
- Ceylon Tobacco Mr. A. Amaradasa
- Gestetner Mr. R.U. Perera
- Kelani Cables Mr. D. Zoingoda

2nd day:

- Browns Engineering Mr. E. Sirvio
- Leather Products M/s. P. Paranavitana, W. Tirikawela
- Reservation

How should we continue? Mr. C.D.R.A. Jayawardane

- Introduction
- Discussion
- Conclusions

Consulting Procedures (Competitions and charges)

ANNEX 22

CONSULTING MANUAL

CONTENTS

0. GENERAL

- 0.1 General about Manual
- 0.2 Contents
- 0.3 Objectives of Consultancy
- 0.4 Tasks of Consultancy
- 0.5 Code of Ethics, Consulting Norms
- 0.6 About Consultancy.

1. MARKETING

- 1.1 General
- 1.2 Brochure
- 1.3 Usual Company Problems
- 1.4 Contents of Proposal
- 1.5 Example of Proposal.

2. EXECUTION OF ASSIGNMENT

- 2.1 General
- 2.2 Steps of Execution
- 2.3 Example of Project Schedule
- 2.4 Example of Collecting of Data
- 2.5 Example of Interview Questions
- 2.6 Example of Steering Committee Agenda
- 2.7 Example of Progress Report
- 2.8 Example of Final Report.



3. CONSULTANTS

3.1 General

3.2 Job Descriptions

3.3 Incentive Bonus Scheme.

4. REPORTS

4.1 General

4.2 Consultant's Weekly Report

4.3 Assignments Summary Schedule

4.4 Periodical Report of Consulting Activities

4.5 List of Potential Customers.

ANNEX 23: SUGGESTED DISTRIBUTION OF REPORT

Sri Lanka Government (Ministry of Industries & Scientific Affairs

- 15 copies

Sri Lanka Standards Institution - 10 copies

UNIDO - 10 copies

UNEP Headquarters - 03 copies

Office of the Resident Representative, Sri Lanka - 02 copies

UN Headquarters Library - 02 copies

UN Library, Geneva - 01 copy

Mr. Ervi Sirvio (Consultant) - 01 copy.



**.09.24**  
**AD.86.07**  
**1115.5+1**