



**TOGETHER**  
*for a sustainable future*

## OCCASION

This publication has been made available to the public on the occasion of the 50<sup>th</sup> anniversary of the United Nations Industrial Development Organisation.



**TOGETHER**  
*for a sustainable future*

## DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

## FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

## CONTACT

Please contact [publications@unido.org](mailto:publications@unido.org) for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at [www.unido.org](http://www.unido.org)

22993

**Nigel Bauer & Associates**

***Integrated Industrial Development  
Support Programme  
for  
Sri Lanka***

***UNIDO Project: TF/SRL/99/003  
Contract No: 2000/183/VK***

***Report 2.08 f  
(Task 12)***

**Final Report**  
Prepared by Nigel Bauer, U.K. Project Manager  
Nigel Bauer & Associates  
8th. April 2003

**Nigel Bauer & Associates**  
Granary House, Saltham Lane  
Runcton, Chichester  
West Sussex. PO20 1PU  
United Kingdom.

Tel +44 (0) 1243 778121  
Fax +44 (0) 1243 789121  
email: [nigel.bauer@nb-a.demon.co.uk](mailto:nigel.bauer@nb-a.demon.co.uk)  
[www.nb-a.demon.co.uk](http://www.nb-a.demon.co.uk)

## CONTENTS

### **Sri Lankan ISO 14001 EMS Programme.**

- 1.0 Introduction
- 2.0 Summary and Conclusions
- 3.0 Recommendations to UNIDO
- 4.0 Original Programme Aims & Objectives
- 5.0 Work Tasks
- 6.0 Methodology and Approach
- 7.0 Summary of achievements
- 8.0 Main Beneficiaries

#### *Appendices*

*Appendix A - Original proposed timeplan*

## **1.0 Introduction.**

This report provides a final summary of the UNIDO Integrated Industrial Development Support Programme for Sri Lanka (UNIDO Project: TF/SRL/99/003 - Contract No: 2000/183/VK) which was initiated in 2000 and completed March 2003, from the perspective of Nigel Bauer & Associates. It contains details concerning the recommendations made to UNIDO by Nigel Bauer & Associates following the completion of the programme of assistance and a final presentation of certificates to local consultants in Colombo 21st. March 2003.

The major outcome of this project has been a group of Sri Lankan companies that are now well on the road to implementing world class Environmental Management Systems, together with the competency development of local EMS consultants and the Sri Lankan Standards Institute.

The programme has proved to have been very demanding for all concerned, but one that has provided a good example of how close cooperation between several participating organisations can facilitate the achievement of overall programme objectives whilst at the same time keeping in mind the need to enable individual participants to meet their personal objectives, in particular the needs of individual private companies who ultimately need to benefit from such a programme. It is in achieving this balance that there are often difficult decisions to be made, and it is a credit to all involved that they have been able to orchestrate their individual efforts to assist the participating companies to achieve their primary objective of developing and implementing a cost effective EMS, whilst at the same time developing the competence of the Sri Lankan Standards Institute (SLSI) to begin the process of that organisation becoming an accredited EMS Certification body in Sri Lanka.

## 2.0 Summary & Conclusions.

The major outcome of this project has been a group of Sri Lankan companies that are well on the road to implementing world class Environmental Management Systems and who can now act as an example to others that this can be achieved in not only a cost effective manner, but in a way that will also add value to the company operations and ultimately the shareholders. This should now act to facilitate the promotion of environmental awareness and understanding throughout the business community in Sri Lanka, together with the adoption of sound environmental management systems based on ISO 14001 and the possibility of certification to this standard.

The Sri Lankan Standards Institute (SLSI) has begun the process of competency development in order to be in a position to ultimately provide internationally acceptable accredited EMS certifications in Sri Lanka. This will not only provide for cost effective certification activities in Sri Lanka and a competitive alternative to the internationally active certification companies, but will also help to ensure that the certification auditing activities are sensitive to the local culture whilst at the same time fully satisfactory to the both the European, Japanese and North American markets.

Additionally a number of local consultants have also been able to begin their process of developing the necessary consultancy and audit skills to provide a resource base for the local economy, and to further their own careers in a credible manner. This resource base will in time be able to fully support local companies with the provision of professional EMS advisory and audit services in a more cost effective manner than recourse to overseas consultancy organisations. The consultants together with the Industrial Technology Institute (ITI) will be able to provide support in relation to both systems and technology matters, and so provide a comprehensive environmental management resource base to the local economy.

Activities undertaken by the participating companies, SLSI, the consultants and ITI have demonstrated that Sri Lanka is able to implement EMS self help through their collective coordinated efforts and to implement world class environmental management systems that have been found to meet the exacting requirements of the international standard ISO 14001.

UNIDO have also demonstrated that it is possible to harness the talents of various individuals and organisations to enable the cost effective development of an EMS support infrastructure within a country. In this instance the external support provided to Sri Lanka involved the U.K. consultancy and training organisation Nigel Bauer & Associates, supported by FICCI Quality Forum consultants from India and the German Certification company RWTUV supported by its Indian subsidiary.

### **3.0 Recommendations to UNIDO.**

#### **3.1 Relating to SLSI:**

##### **3.1.1 Business relationship with RWTÜV.**

The pressure on SLSI to work with RWTÜV should be maintained in order to assist with the adequate development of SLSI into an effective and internationally acceptable EMS certification body. The tendency to take shortcuts in relation to auditor competency development and in relation to EMS certification and surveillance activities can often be motivated by the desire to expand business activities, particularly when there is a fear that internationally active and competent certification organisations are seeking to expand their activities into the Sri Lankan market. RWTÜV has already demonstrated that it is very prepared to work with SLSI even though in the longer term there is an appreciation that SLSI may eventually decide to operate totally independently in relation to EMS certification activities.

The impression gained from the actions taken by RWTÜV to date together with discussions held with their Essen office representatives is that RWTÜV is very willing to be a business partner to SLSI in a manner that will not only assist in the competency development of SLSI but also in the possibility of SLSI becoming a resource upon which RWTÜV may draw to supplement its own resources within the region.

The value of strategic business relationships cannot be over emphasised when flexibility of operations is so necessary in the modern world to ensure adequacy of ability to meet competitive threats. SLSI is in the position where they need to demonstrate to an international audience that they are credible and competent if EMS certifications awarded by them are to be regarded as fully acceptable to European or North American purchasers of Sri Lankan industrial output. By being associated with RWTÜV not only does it provide for international acceptability of SLSI EMS certifications but it also helps to mitigate against other internationally active certification organisations moving in to the Sri Lankan certification market.

The current business arrangements between SLSI and RWTÜV should be reviewed and revised in the light of the recent certification experiences and giving due consideration to the SLSI auditor competency development recommendations given below. It is suggested that SLSI should be encouraged to enter into a formal commitment of cooperation with RWTÜV for a defined period, during which time SLSI certifications will carry the additional endorsement of RWTÜV.

This approach will also provide for greater confidence in the Sri Lankan business community that certifications awarded by SLSI will be viewed as fully acceptable in the international arena.

### 3.1.2 SLSI Auditor Competency development.

There should now be a pro-active approach to competency development at SLSI, with the assistance of RWTüV, to ensure that SLSI auditors are provided with the full opportunity of developing their EMS expertise and auditing skills to the benefit of SLSI and the Sri Lankan economy. Each company that has received certification from RWTüV will need to be the subject of planned on-going surveillance. RWTüV will have already determined their approach to doing this which will now also need to involve SLSI auditors. Each SLSI auditor should be the subject of a formal competency development programme involving not only auditing activities but the acquiring of EMS knowledge and experience. It is suggested that a formal competency evaluation should be performed on each of the SLSI auditors and a personal development programme produced, which should be linked into the ongoing certification activities to be implemented by RWTüV.

RWTüV training of SLSI staff was undertaken by providing a series of training courses/workshops, attended by 14 delegates from SLSI. All delegates were considered by RWTüV to be well motivated and very active during the training process. All delegates had a good theoretical knowledge of the process of ISO 14001 certification audit but had never participated in a “real” audit before. All stages of the certification audits performed on the Sri Lankan companies by RWTüV involved the full participation of the delegates from SLSI.

It was noted by RWTüV that during their daily business activities, the SLSI delegates were mainly involved in testing and administrative activities and only some of them had had a minimum of at least two years of appropriate work experience in the activities of the companies that were to be the subject of the ISO 14001 certification audits.

Following the training of SLSI staff RWTüV made the following recommendations:

- i). *All participants of the 'on-the-job' training should receive further training on environmental legislation and additional requirements to which the auditee has to subscribe when establishing an environmental management system.*
- ii). *All further applicants for becoming Environmental Auditors should have at least two years of work experience in the activities of the organisation to be audited.*

Such a competency development programme therefore will need to include not only the acquisition of knowledge in relation to specific environmental aspects related to the involved industries but also development of specific skills in relation to EMS development and implementation processes. The ultimate aim of the competency development programme being to provide the SLSI auditors with the ability to fully understand the complexities of environmental management system requirements and the practical considerations involved when developing suitable systems in relation to particular industries.

Suggested competency development programme elements for SLSI EMS audit staff:

- a) *EMS knowledge (including local legislation).*  
*Provided by a combination of formal and self study elements.*
- b) *EMS experience.*  
*Provided by secondment to selected and appropriate industry sector organisations within or external to Sri Lanka engaged in EMS implementation activities.*
- c) *EMS Auditing skills.*  
*Obtained by working alongside RWTüV EMS auditors engaged in on-going EMS certification surveillance activities.*
- d) *EMS Certification assessment management skills.*  
*Obtained by undertaking future full EMS certifications working under the supervision of an RWTüV Lead Auditor.*

The SLSI auditors should be actively encouraged to gain EMS Lead Auditor status by means of formal registration with IRCA. An initial application should be made by each of them in order to determine the current gap between IRCA registration requirements and their current level of evidence of knowledge and skills. This will assist with the tailoring of their personal competency development programmes to ensure ultimate satisfaction of their applications.

RWTüV have made the point that the auditors would need to gain approximately two years of work experience (EMS related) in the organisations that they intend to audit before they could be considered as fully acceptable EMS certification auditors.



## **3.2 Relating to local consultants:**

### **3.2.1 Continued development of consultancy competence.**

All involved consultants should be encouraged to continue to work with their currently assigned companies in order to further increase their experience. This will require them either to negotiate ongoing contracts to provide support in relation to extensions of the current EMS programme, or to encourage their assigned companies to purchase short term consultancy support for specific EMS related tasks.

It is recommended that the consultants review the opportunities within each assigned company with a view to securing additional consultancy work. This could also include the provision of additional audit resource to be provided by the consultant as part of an on-going client support programme. Auditing activities will greatly assist the consultants to develop their understanding of the problems and difficulties being encountered by the companies in trying to deal with the many environmental issues and practical EMS implementation difficulties.

Consultants should also be attempting to broaden their industrial EMS experience by attempting to secure contracts in other organisations operating in industries not totally removed from the original assigned organisations, but involved in fairly similar processes. This will assist in building their confidence to become involved with a more diverse range of organisations for future EMS development and implementation programmes.

Consultants should also be attempting to achieve IRCA Lead Auditor registration status, by following a planned programme of personal development to enable a successful application to IRCA to be made. In order to facilitate this competency development they should make an initial application to IRCA in order to identify any personal shortfall against the IRCA criteria. In particular they will need to undertake a level of independent consultancy audits to the satisfaction of IRCA.

### **3.2.2 Networking with other consultants.**

It is suggested that all consultants that have been involved in this programme could enter into a more formal networking arrangement to assist not only with the possible sharing and exchanging of information, but to enable more comprehensive support to be provided to a diverse spectrum of local industries and drawing on the specific talents and industrial experiences of the multi-disciplined consultancy group. Such a networking arrangement may need to be coordinated by one or two of the more business focused consultants or within the umbrella of ITI as a host organisation. ITI could also maintain a listing of consultants recognised for their competence in environmental matters. In addition ITI and the consultants network could publish a formal listing of consultancy services that could be provided with a recognised general level of competence to the local business community.

This could assist with the promotion of EMS consultancy services to recognised levels of competence in Sri Lanka and thus provide a professional baseline of consultancy and EMS advisory services that may then be actively promoted throughout Sri Lanka. General networking arrangements would also allow for the undertaking of major EMS programmes requiring a team of consultants working together to provide more comprehensive support to organisations, particularly those that may have very limited resources available to undertake the necessary EMS development and implementation activities. The network could offer a range of EMS related services such as environmental studies, reviews, audits etc. and could provide a focal point for EMS expertise within Sri Lanka.

### **3.3 Relating to UNIDO:**

#### **3.3.1 Future EMS assistance programmes.**

##### **a) Selection of consultants.**

The experiences gained in the Sri Lankan project have indicated the need to carefully pre-select potential participating consultants and then to effectively screen them during the initial training process in order to ensure a minimum level of capability.

Several of the company pilot projects did suffer initially from the tendency of consultants (and company EMS representatives) to adopt standardised EMS Manuals provided as case study examples on the EMS Auditor training course, and later the consultant's workshop. It is unclear how these case study examples came to remain in the possession of the consultants / companies, however it is very difficult to safeguard against photo copying of materials during training courses.

There did appear to be a lack of appreciation in the companies concerned that such case study EMS Manuals would not be in any way acceptable for their specific company operations, and in relation to the consultants themselves this must be regarded as a completely unacceptable approach to EMS development. Unfortunately the delays experienced in relation to submission of EMS Manuals to the U.K. project leader did not allow for this problem to be noted until RWTüV had become involved in the project activities. It was particularly disconcerting when this problem was noted by RWTüV during the very early stages of undertaking document reviews of the pilot company EMS Manuals, and somewhat embarrassing to the U.K. Project Manager that confidential training materials had been used in this way.

The results from the EMS Lead Auditor training course together with the consultants workshop should have resulted in some of the potential participating consultants not being permitted to participate in provision of consultancy support to the pilot companies. This is an area for future consideration should similar programmes be undertaken.

##### **b) Coordination of external programme support.**

Integrating the efforts of the key players has not been easy, particularly when they are under other pressures that do not always enable them to be available at the most convenient or appropriate times. The local UNIDO Project office has been of vital importance in acting as the cement between the building bricks of this project, and a valuable lesson here is the need for this continued proactive involvement throughout all stages of the project and with all participants. A strong local project office is seen as vital to project success, even in this modern world of email and telephone contact there can be no substitute for direct personal involvement. The U.K. project leader is indebted to the UNIDO project office for their invaluable assistance and support throughout.

Different timescales for EMS related actions within the participating companies makes it difficult for an overseas based project leader to be able to schedule visits at times suited to the achieved milestones. There is no simple solution to this other than the need for initial overall project planning to recognise that companies will develop and implement their EMS over different timeframes and therefore there may be a need to base the overall project timescales on what might be considered to be the more complex organisations (from an EMS perspective) and schedule visits to correspond with project milestones relating to key outputs from these organisations. It was often the case that the U.K. project leader found lack of progress in some organisations which resulted in the visit to Sri Lanka being less than fully effective.

It is also recommended that for future programmes more frequent visits by overseas based project leaders should be budgeted for in order to assist with the closer coordination of participating programme team members, and to facilitate pilot project activities.

Regular meetings between all participating organisations has not been easy, and is an area for future consideration and possible improvement. Regular project team meetings assist overall project progress and could have been better linked to key milestones. In particular it is considered beneficial to bring together the consultants together at regular forums in order to not only monitor progress in relation to individual projects but also to continue with their training and professional development. When such meetings were held they were found to be very beneficial and instrumental in facilitating project progress. This is considered to be a valuable lesson for future application.

It is also suggested that the local UNIDO project office, or alternatively a local consultant is given the responsibility for monitoring progress against project plan key milestones on a regular basis and for providing reports to the overall project manager in order to ensure high level feedback on progress, particularly in relation to important project activities and the development of key documents. The lack of progress in some instances on this programme could have been prevented by such being flagged up at an earlier stage and thus allow for more pressure to be applied.

The involvement of regional expertise in the form of FICCI Quality Forum has greatly improved the overall cost effectiveness of the programme. FICCI Quality Forum staff participated very effectively in the application of direct consultancy activities, however it was at times difficult to coordinate their visits with the U.K. project leader due in part to the difficulty of coordinating local company progress to ensure that key milestones had been met in all participating companies at an appropriate time which then made for the most effective visits to be made. Again, for future programmes it is recommended that much closer coordination and progress monitoring is undertaken by a local representative.

**c) Selection of Certification company.**

It is important to select an appropriate accredited certification company for projects of this nature, one that participates pro-actively, becomes an integral part of the overall project team, and one that is prepared to work in an open and supportive manner.

The selected certification company for this programme was the German organisation based in Essen, Germany RWTuV. RWTuV supported this programme from their Essen office together with the resources of their Indian office. RWTuV were prepared not only to work closely with SLSI but also assisted with the direct training of SLSI EMS auditors and by allowing them to work alongside RWTuV's own auditors imparted practical EMS auditor techniques in a very cost effective manner. RWTuV has demonstrated the importance of carefully selecting a certification company. They have fully supported this important programme, recognising at an early stage the need to be a pro-active member of the project team rather than simply a certification company wishing to 'acquire' certification numbers to satisfy their own business development needs. Their auditors have acted very professionally, with fair and objective judgements, and the companies receiving certification can be confident in the knowledge that they have ISO 14001 environmental management systems that have truly deserved the award. By working with RWTuV SLSI will ultimately be in a position to certificate organisations with the full backing of international credibility that will serve well the needs of Sri Lankan industries who must operate in an internationally competitive and responsible manner. This project has provided not only the opportunity for the development of competence to satisfy international accreditation criteria, but the opportunity for SLSI auditors to work alongside other EMS certification professionals.

#### **4.0 Original programme aims & objectives:**

To develop a national capability in setting up Environmental Management Systems based on ISO 14001, and involving the local Sri Lankan Standards Institute (SLSI) and the Industrial Technology Institute (ITI) for the purpose of also developing a local capability for the certification of organisations to ISO 14001. The programme focused on the need to achieve the following key objectives:

1. Training and competence development of twenty national consultants capable of providing consulting support to enterprises embarking on setting up EMS.
2. EMS competence development of auditors from SLSI to enable them to undertake ISO 14001 certification audits and provide the necessary practical audit training and experience to enable registration as IRCA certified EMS auditors.
3. Sensitising twenty five Sri Lankan enterprises on EMS requirements and benefits.
4. Assisting ten enterprises in carrying out environmental reviews and setting up EMS documentation and related manuals.
5. Certification audits conducted on at least five of the above ten enterprises.
6. Following the main programme, to then assist a further ten enterprises to carry out environmental reviews and to set up EMS documentation and related manuals.

In addition, by facilitating the active involvement of SLSI in the above activities to assist SLSI to become an ISO 14001 certification body in Sri Lanka, and so provide a cost effective and internationally credible certification capability within Sri Lanka.

## 5.0 Work Tasks.

The programme was initially set up to involve the following specific tasks to be undertaken by Nigel Bauer & Associates, utilising the support services of FICCI Quality Forum of India (Federation of Indian Chambers of Commerce and Industry):

- Task 1** Initial project familiarisation.  
Visit to Sri Lanka by project leader.  
Contacts with SLSI/ITI.  
Brief local partners on project objectives and relative roles and responsibilities.  
Awareness seminar. Design of work plan
- Task 2** First IRCA registered EMS training course (5 day), targeting a group of 18-20 trainees
- Task 3** First EMS Consulting training Course for 18-20 trainees (to follow immediately after EMS course)
- Task 4** Initiate ten "Pilot" EMS projects  
Assess enterprises strengths/weaknesses  
Guide local consultants in setting up EMS  
Define Pilot project work plan
- Task 5** Review of EMS manuals for Pilot companies (Documents by e-mail/courier)
- Task 6** EMS systems launched in Pilot companies
- Task 7** Facilitation for Third party audit (and practical audit training for local auditors during third party audit).
- Task 8** Second EMS Auditor training course  
To strengthen capacity and pilot enterprise work
- Task 9** Second stage support to Pilot EMS projects.  
Consultant training and Auditor practical training  
Enterprise EMS assessment/improvement
- Task 10** Third stage support to Pilot EMS projects.  
Conduct of Pre assessment audits  
Consultant training and Auditor practical training
- Task 11** Support during certification audits  
Further advise to Pilot enterprises  
Closing seminar
- Task 12** Final report and recommendations to UNIDO

The original timeplan for the above tasks is as detailed in Appendix A to this report, however various project delays including an initial project startup delay and terrorist activities within Sri Lanka caused the overall project to be extended by approximately twelve months.

## 6.0 Methodology & Approach.

In relation to the above tasks Nigel Bauer & Associates provided both training and consultancy support services utilising a combination of FICCI Quality Forum staff and an EMS expert from the U.K. in order to ensure full and effective support to the project. FICCI Quality Forum was used to supply the services of both trainers and consultants who assisted the U.K. EMS expert to deliver EMS auditor training, training and coaching support to local trainee consultants, and also direct consultancy services to the pilot companies seeking to develop and implement an ISO 14001 based EMS.

The Sri Lankan trainee consultants were used to provide practical ongoing training of the local staff through the implementation of projects within the pilot organisations, whilst at the same time overseeing these projects to a successful conclusion. The participating company staff undertook all project activities under the guidance of the external consultants, undertaking the necessary Environmental Reviews and developing, together with appropriate target company staff, suitable ISO 14001 based Environmental Management Systems, including appropriate EMS Manuals and supporting documentation. They undertook all project activities in accordance with timeplans developed for each target organisation, developed as an output from the initial training activities and as agreed with the organisations. The U.K. consultant operated for many of the direct project activities through consultants provided by FICCI Quality Forum in order to minimise the costs of using relatively more expensive U.K. resource together with the associated travel costs, however for key project activities the direct involvement of the U.K. consultant was necessary in order to ensure adequacy of transfer of technical knowledge and expertise from the U.K. to Sri Lanka. All activities undertaken by FICCI Quality Forum were undertaken under the guidance and management of the U.K. consultant.

The initial EMS training was aimed at providing the pilot company staff with a baseline understanding of environmental management systems but did not provide any technical training in relation to specific industries environmental effects or environmental control technologies.

The auditor training was to an appropriate standard to enable the local auditors to support the pilot organisations with a level of professional auditing activity to verify an organisations compliance with ISO 14001 and to provide ongoing audit support to monitor continued compliance. It was also to a standard to enable the auditors to be in a position to ultimately become registered with IRCA in order to provide them with the necessary local and international credibility (recognising that such registration also depends to a large degree on the existing qualifications of these staff as well as a level of experience in relation to environmental management systems that needed to be acquired throughout the above project implementation phase).

Nigel Bauer & Associates also assisted UNIDO in the selection of a suitable certification organisation and acted as a support interface between the target companies wishing to achieve ISO 14001 status and the chosen certification company.

Final certification of an agreed selection of target companies is regarded as the final project completion milestone.

The EMS Auditor training was delivered on two occasions in order to satisfy the training needs of both consultants and local EMS auditors. It involved the delivery of Nigel Bauer & Associates IRCA certificated EMS Lead Auditor training course involving a final two hour examination sat by all delegates. The results of these courses were supplied to the UNIDO project manager.

The EMS "Consultants Training Course" was designed and delivered by Nigel Bauer & Associates to provide intending consultants with the skills and abilities necessary to enable them to act in the capacity of consultants / advisors to local companies in relation to the design and implementation of suitable environmental management systems aligned to ISO 14001, and also to undertake formal auditing of such. The course was of five days duration and run in a workshop style immediately following the first EMS auditor training course, and built upon the previous training in relation to ISO 14001 understanding. The course introduced the delegates to the approaches taken to developing and implementing formal systems, the role and responsibilities of external consultants in relation to the process, and the skills and abilities required of such consultants. The final outcome of the training involved an assessment of delegate performance in relation to their understanding and attitudes and also required delegates to produce their personal action plan for self development before undertaking consultancy / advisory activities.

A final report on each delegate's performance was supplied to the UNIDO project manager upon completion of the workshop. In summary this indicated that the majority of delegates performed acceptably.

Following this workshop consultants were then assigned to the participating 'pilot' companies.

## 7.0 Summary of Achievements.

1. A Sri Lankan capability for EMS was developed involving the competency development of 20 local auditors and 20 local EMS consultants.
2. Ten local pilot companies were 'sensitised' to the concept of an EMS, namely;

Link Natural Products Ltd. - Natural & Herbal products  
Hands International Ltd. - Apparel Gloves  
Bandaranayake Exports Ltd. - Coir products  
Aqua gardens Ltd. - Prawn Hatchery & Processing  
Lanka fasteners Ltd. - Metal Nuts & Bolts  
Finitex Textile Finishing Ltd. - Stitched Garments  
Harischandra Mills Ltd. - Food & Soap production  
Koslanda Estates (Maskeliya Plantations) Ltd. - Organic Tea Plantation & Tea processing  
Sri Ramco Lanka Ltd. - Asbestos & Cement manufacture  
Prime Polymers (Industrial Clothing) Ltd - Surgical rubber gloves

3. Five of the above 'sensitised' local companies developed and implemented an EMS and were the subject of a full EMS ISO 14001 Certification assessment undertaken by RWTüV, the selected Certification company, on a cost shared basis, namely;

Lanka Fasteners Ltd.	Assessed 22, 24, 25 July 2002 (Failed Initial Assessment)
Sri Ramco Ltd	Assessed 26 July 2002
Aqua Gardens Ltd.	Assessed 29-30 July 2002
Koslanda Estates Ltd.	Assessed 1-2 August 2002
Finitex Textile Ltd.	Assessed 7-9 August 2002

Finitex were subsequently successful.

*Link Natural Products Ltd. decided to use their existing ISO 9001:2000 Certification company, SGS Yarsley, and so did not meet the criteria for costs to be met under the overall programme.*



4. SLSI capability as a competent body for ISO 14001 certifications was enhanced by close working with RWTüV and in particular training provided by RWTüV through the following approach:
  - a. Training for SLSI staff in the preparation for an environmental management system certification audit ( 15th to 19th. July 2002):
  - b. Audit-on-the-job-training for individuals from SLSI in the examination of the auditee's environmental management system documents; Undertaking process analysis; Development of Audit Plan and Audit Check-Lists; Questioning Techniques
  - c. Audit 'on-the-job' training for individuals from SLSI in the performance of EMS audits by participation in the on-site audit process as a trainee under the supervision and guidance of a RWTüV lead auditor.
  - d. Training for SLSI auditors in the issue of certification audit reports ( 12th. – 18th. August 2002)
  - e. Audit-on-the-job-training for individuals from SLSI to evaluate audit findings and write environmental management system reports.

A total of 14 SLSI staff were trained by seminars and on the job training as detailed above for future performance of ISO 14001 certification audit activities.

RWTüV has made the recommendation that in the longer term these 14 SLSI staff can be registered as auditors for TÜV Cert / RWTüV Anlagentechnik GmbH and may perform the surveillance audits in the companies mentioned and also participate in future audits on behalf of RWTüV Anlagentechnik in this region. However, this long term result depends on a future agreement between SLSI and TÜV India, who is the subsidiary of RWTüV Anlagentechnik in India and fully responsible for all RWTüV Anlagentechnik activities in the India / Bangladesh / Sri Lanka region

## **8.0 Main beneficiaries.**

### **8.1 Sri Lanka companies.**

A select group of Sri Lankan companies who have set out to demonstrate that they not only have a concern for the environment but are able to operate in an environmentally responsible manner that uses an international benchmark against which their approach may be judged. The fact that some organisations did not achieve full conformity at the first attempt is proof of the magnitude of the task and the demanding and rigorous nature of the certification process itself. For those organisations that have now achieved ISO 14001 certification Sri Lanka can be proud, but even more so the senior management team should be congratulated on the commitment that they have shown to both the project itself but also to the 'act of faith' that such a project will be of long term benefit to the constitution and financial health of their organisations and in the full interests of their shareholders.

The success of this programme is in the raising of environmental awareness in management and staff at all levels together with the development of in-company environmental expertise that is now a valuable resource for the future and available to take these companies forward into an uncertain world with the confidence of knowing that they can be in full control of their EMS and so manage more effectively and mitigate against the negative impact of their company operations on the environment. Developing and implementing an EMS requires a good deal of commitment and has provided these companies with the confidence in knowing that such a complex programme can be handled using local expertise. They are now in an excellent position to embark on a programme of continual improvement of their environmental performance and so elevate their companies to world class EMS status.

### **8.2 SLSI.**

SLSI have embarked upon a programme of EMS competency and capability development involving not only their EMS auditors but also the organisation itself in order to bring to Sri Lanka the much needed capability to provide ISO 14001 Certification services that meet with international standards of acceptability to ensure full acceptance of certifications awarded to customers throughout the world. This capability has been developed and is enhanced by working with a professional certification company of international repute in the form of RWTüV.

### **8.3 Sri Lankan consultants.**

Working under the guidance of a U.K. based EMS consultant, local consultants have had an opportunity not only to pass through internationally recognised EMS training, but a full training programme constructed to assist them to develop their skills over a period of time and within a working environment. Each of these consultants has had an opportunity to be involved with the development and implementation stages of an ISO 14001 programme up to and including the certification process.

They have worked closely with pre-assigned Sri Lankan companies, assisting in an advisory capacity in relation to all key stages of an EMS project. This has provided them with real life experience of the practical difficulties involved in providing consultancy support and has given them the opportunity to develop their consultancy skills to enable further projects to be tackled.

A core group of these consultants have not only worked closely with their assigned organisations, but they have also participated in audits undertaken at other companies and seen at first hand the EMS shortcomings of those companies, as seen through the eyes of an auditor. Participating in such activities has broadened their view as to what should be involved when developing an EMS and the practical difficulties that can be experienced during the implementation process. Problems that may revolve more around people issues rather than issues of a technical nature.

Consultants that are able to share and exchange views and experiences will not be blind to the benefits to be gained by such interchange. They can quickly circumvent years of personal experience by sharing and networking with others of a like mind and it is hoped that the opportunity to collectively participate in this programme has provided them with this powerful networking capability for their future activities.

Examples of competent EMS related activities have been undertaken by the consultants that are at a similar level to what could be expected in any part of the world and there is now within Sri Lanka a body of professional consultancy experience that may be utilised confidently by other organisations.

#### **8.4 Industrial Technology Institute**

The technical competence of ITI has been beneficial throughout all stages of this project and they are to be thanked for their wholehearted support. It is hoped that they too have benefitted through active involvement and have developed an appreciation of the difficulties of meeting technical requirements in a cost effective manner suitable to support an organisation where all investment and activities undertaken must ultimately be fully justifiable to shareholders.

#### **8.5 UNIDO**

The pro-active support and interventions of UNIDO have been greatly appreciated by all, and it has provided valuable insight into the benefits that such a programme can bring to a country. This will no doubt provide a model for future similar programmes.

The local UNIDO project office has been extremely instrumental in facilitating a successful outcome to this project. Without the efforts of this office activities can sometimes slow down and project coordination can suffer. Such an office becomes a prime requirement if project success is to be secured, and the full support and rapid response provided to the U.K. project manager has been invaluable in maintaining close contact with project participants and catalysing actions whenever there was a need.

# Appendix A - Original Proposed Project TimePlan - Sri Lanka

## Environmental Management Systems

**Training of local consultancy staff linked to industry Pilot Projects**  
*(Original Timeplan to run from October 2000 through to November 2001.  
 Delayed start plus significant project delays, including terrorist activities in  
 Sri Lanka, resulted in an overall 12 month delay).*

